

STRUCTURAL ABBREVIATIONS

(E) (F) (N) (R) Ø ⊥ #	EXISTING FUTURE NEW RENOVATE KSF DIAMETER OR ROUND PERPENDICULAR SQUARE NUMBER OR POUND	I.D. IAPMO IBC ICC INCH INS. INTERIOR INT.	INSIDE DIAMETER INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS INTERNATIONAL BUILDING CODE INTERNATIONAL CODE COUNCIL INSULATION INTERIOR
Ø A.F.F. A.R. ABV. ACI ADJ. ADJUSTABLE AGG. AGGREGATE AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISI AMERICAN IRON AND STEEL P. AL.T. ALUM. ALUMINUM APPROX. ARCH. ARCHITECTURAL ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS AWS AMERICAN WELDING SOCIETY	ANCHOR BOLT ABOVE FINISH FLOOR ANCHOR ROD ABOVE AMERICAN CONCRETE INSTITUTE ADJUSTABLE AGGREGATE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL P. ALUM. ALUMINUM APPROXIMATE ARCHITECTURAL AMERICAN SOCIETY FOR TESTING AND MATERIALS AMERICAN WELDING SOCIETY	K KLF KSI K.F. L.O. L.L.V. L.L.H. L.P. L.A.M. L.V.L. LBS. LSL	KIP (1000 LBS) KIP PER LINEAR FOOT KIP PER SQUARE FOOT KIP PER SQUARE INCH KNOCKOUT LINEAL FEET OR FOOT LONG LEG VERTICAL LONG LEG HORIZONTAL LOW POINT LAMINATE LAMINATED VENEER LUMBER POUNDS LAMINATED STRAND LUMBER
B.F. B.O.C. B.T. B.U. B.O. BLDG. BLK. B.M. B.O.T. BRG.	BOUNDARY FASTENERS BELOW FINISH FLOOR BOTTOM OF BOTTOM OF CONCRETE BETWEEN BUILT-UP BOARD BUILDING BLOCK BETWEEN BEARING	M.B. M.H. M.O. MAX. MECH. MET. MFR. MIN. MISC. MTRD MTL	MACHINE BOLT MANHOLE MAXIMUM MECHANICAL METAL MANUFACTURER MINIMUM MISCELLANEOUS MOUNTED MATERIAL
C.C. C.I. C.J.P. C.L. C.M.U. C.O. C.L.G. CLR. CLRSK. COL. CONC. CONT. CONCR. CRSI	CENTER TO CENTER CAST IRON CAST IN PLACE CONTROL JOINT CONCRETE MASONRY UNIT CONCRETE OPENING OR CLEAN-OUT CEILING CLEAR COUNTERSUNK COLUMN CONCRETE CONTINUOUS CONCRETE CONCRETE REINFORCING STEEL INSTITUTE	N N.I.C. N.S. N.T.S. NO. NOM. N.S.	NORTH NOT IN CONTRACT NEAR SIDE NOT TO SCALE NUMBER NOMINAL NEAR SIDE
C.O. C.L. C.M.U. C.O. C.L.G. CLR. CLRSK. COL. CONC. CONT. CONCR. CRSI	CLEAR-OUT CEILING CLEAR COUNTERSUNK COLUMN CONCRETE CONTINUOUS CONCRETE CONCRETE REINFORCING STEEL INSTITUTE	O/H O. O.A. O.C. O.D. O.H. OPNG. OPNG. OSB OZ.	OVERHEAD OVER OVER ALL ON CENTER OUTSIDE DIAMETER OPPOSITE HAND OPENING OPENING ORIENTED STRAND BOARD OUNCE
D D.B.A. D.F. D.L. DIA. DIAM. DIAG. DIM. D.W.G.	DEEP DEFORMED BAR ANCHOR DOUGLAS FIR DETAIL DIAMETER DIAGONAL DIMENSION DRAWING	P/L P.S.L. PART. PL. PLF PLYWD. PRE-ENG. PSF P.SI PT. PT.	PROPERTY LINE PARALLEL STRAND LUMBER PARTICLE PLATE POUNDS PER LINEAR FOOT PLYWOOD PRE-ENGINEERED POUNDS PER SQUARE INCH POUNDS PER SQUARE FOOT PRESSURE TREATED POINT
E E.B. E.C. E.E. E.F. E.J. E.J.W. E.L. ELEC. ELEV. EQ. EQUIP. ESR EXP. EXT.	MODULUS OF ELASTICITY EXPANSION BOLT ECCENTRICALLY BRACED FRAME EDGE EDGE NAIL EXPANSION JOINT EACH WAY EACH ELEVATION ELECTRICAL ELEVATOR EQUAL EQUIPMENT EVALUATION SERVICE REPORT EXPANSION EXTERIOR	R. R.D. R.O. RSCC REIN. REINFD. REQ'D. RM. RS. S.C. S.S. SCHED. SECT. SHEET SHT. SILMS S.S. SPECS. STD. STRUC. SUSP. SYM.	RADIUS OR RISER ROOF DRAIN ROUGH OPENING RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS REFERENCE REINFORCED (CONC) REQUIRED ROOM ROUGH SAWN SOLID CORE SQUARE FEET OR FOOT STAINLESS STEEL SCHEDULE SECTION SHEET SIMILAR OR SIMILAR TO SEISMIC LOAD RESISTING SYSTEM SPECIFICATIONS SQUARE STANDARD STRUCTURAL SUSPENDED SYMMETRICAL
F.B. F.D. F.F. F.O. F.O.C. F.O.F. F.O.M. F.O.S. F.O.T. FON. FIN. FL. FLASH. F.L. F.S. F.T. FTG. FTW. FURR. FY FU	FLAT BAR FLOOR DRAIN FINISH FLOOR FACE OF FACE OF CURB/CONCRETE FACE OF FINISH FACE OF MASONRY FACE OF STUDS FACE OF TREAD FOUNDATION FINISH FLOOR(ING) FLOOR FLASHING FAR SIDE FOOT OR FEET FOOTING FIRE TREATED WOOD FURRING YIELD STRESS TENSILE STRENGTH	T&B T&G T.O. T.O.C. T.O.D. T.O.M. T.O.S. T.O.W. THK. THRU TIS TYP.	TOP AND BOTTOM TONGUE & GROOVE TOP OF TOP OF CURB/CONCRETE TOP OF DECK TOP OF MASONRY TOP OF SLAB TOP OF WALL THICKNESS THROUGH TUBE STEEL TYPICAL
G.T. GA. GALV. GLB GLP GYPSUM	ORDER TRUSS GAUGE OR GAGE GALVANIZED GLULAM BEAM GYPSUM	U.B.C. U.O.N. U.N.O. V.I.F. VERT.	UNIFORM BUILDING CODE UNLESS OTHERWISE NOTED UNLESS NOTED OTHERWISE VERIFY IN FIELD VERTICAL
H. H.C.A. H.P. HORIZ. HR. HSS HT. HVAC	HIGH HEADED CONCRETE ANCHOR HIGH POINT HORIZONTAL HOUR HOLLOW STRUCTURAL SECTION W. HEIGHT HEATING VENTILATING & AIR CONDITIONING	W/ W/O WD. W. W.P. W.W.F. WF	WITH WITHOUT WOOD WIDE WORK POINT WELDED WIRE FABRIC WIDE FLANGE

GENERAL STRUCTURAL NOTES

- DESIGN INFORMATION AND LOADS USED: 2009 INTERNATIONAL BUILDING CODE
 - ROOF DEAD LOAD 20 PSF
 - FLOOR DEAD LOAD 80 PSF
 - OCCUPANCY CATEGORY IV
 - SNOW LOAD:
 - GROUND SNOW LOAD, P_g 20 PSF
 - SNOW EXPOSURE FACTOR, C_e 1.0
 - SNOW IMPORTANCE FACTOR, I 1.2
 - THERMAL FACTOR, C_t 1.0
 - FLAT ROOF SNOW LOAD 25 PSF (MINIMUM)
 - FLOOR LIVE LOAD 100 PSF
 - WIND LOAD:
 - BASIC WIND SPEED (1-SEC GUST) 90 MPH
 - WIND IMPORTANCE FACTOR 1.5
 - WIND EXPOSURE C
 - SEISMIC IMPORTANCE FACTOR, I_a 1.5
 - MAPPED SPECTRAL RESPONSE ACCEL., S_a 0.132g
 - MAPPED SPECTRAL RESPONSE ACCEL., S_1 0.106g
 - SITE CLASS D
 - RESPONSE MODIFICATION FACTOR, R 1.55
 - SPECIAL STEEL MOMENT FRAMES EQUIVALENT LATERAL FORCE 0.32
 - SEISMIC RESPONSE COEFFICIENT, C_s 0.17
 - ANALYSIS PROCEDURE SPECIAL STEEL MOMENT FRAMES EQUIVALENT LATERAL FORCE
 - DESIGN BASE SHEAR 0.06
 - DESIGN BASE SHEAR $V = CWQ = 0.06W$
- FOUNDATION:
 - FOUNDATION DESIGN WAS BASED UPON RECOMMENDATIONS GIVEN IN THE PROJECT GEOTECHNICAL REPORT: MATERIALS TESTING & INSPECTION DATED 7 JUNE 2012
MTI FILE NUMBER B120465g
ADDENDUM #1 - ADDITIONAL FOUNDATION RECOMMENDATIONS REVISED
 - ALL GEOTECHNICAL AND EARTHWORK SHALL BE ACCORDANCE WITH THE RECOMMENDATIONS OF PROJECT GEOTECHNICAL REPORT AND THE CONTRACT DOCUMENTS. ALL GEOTECHNICAL WORK SHALL BE OBSERVED AND TESTED BY THE GEOTECHNICAL ENGINEER OR APPROVED SPECIAL INSPECTION AGENCY QUALIFIED IN GEOTECHNICAL WORK.
 - ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH THE NEW CONSTRUCTION SHALL BE REMOVED.
 - FOR PIPING OR OTHER UTILITIES ALONGSIDE OR PENETRATING THRU FOUNDATION WALLS
RE: S3.1-6.
 - PROVIDE DAMPROOFING AT EXTERIOR FOUNDATION WALLS AT EXTERIOR FACE BELOW FINISHED GRADE.
 - ALL STRUCTURAL FILL MATERIAL AND PLACEMENT SHALL BE PER GEOTECHNICAL REPORT.
- CONCRETE:
 - ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 AND ACI 301 WITH MODIFICATIONS AS NOTED ON THE DRAWINGS OR CONSTRUCTION DOCUMENTS.
 - CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SEALED BY A PROFESSIONAL CIVIL ENGINEER REGISTERED IN THE STATE OF PROJECT LOCATION. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND USE IN STRUCTURE. SUBMIT MIX DESIGNS TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
 - SCHEDULE OF STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTH, f'_c , SHALL BE AS FOLLOWS:

FOOTINGS	4000 PSI
FOUNDATION GRADE BEAMS AND PIER CAPS	4000 PSI
STRUCTURAL WALLS	4000 PSI
ELEVATED SLAB ON METAL DECK	4000 PSI
 - ALL CONCRETE SHALL BE NORMAL WEIGHT, DENSITY 145 PCF USING HARD ROCK AGGREGATE TYPE CONFORMING TO ASTM C33.
 - PORTLAND CEMENT SHALL BE TYPE II AND CONFORM TO ASTM C150.
 - MIX WATER SHALL BE CLEAN AND POTABLE.
 - FLY ASH SHALL CONFORM TO ASTM C618 AND ACI 318. SUBSTITUTION RATE SHALL BE LIMITED TO BETWEEN 15 TO 25 PERCENT MAXIMUM. CLASS F FLY ASH SHALL BE USED FOR CONCRETE IN CONTACT WITH SOIL THAT HAS SPECIFIED STRENGTH OF 4000 PSI AND GREATER. CLASS C FLY ASH MAY BE USED ELSEWHERE.
 - CONCRETE QUALITY, MIXING AND PLACING SHALL CONFORM TO ASTM C94, IBC SECTION 1905 AND ACI 304.
 - MAXIMUM SLUMP SHALL BE 5 INCHES. FOR MIX DESIGNS THAT INCLUDE ADMIXTURES AND/OR PLASTICIZERS TO IMPROVE WORKABILITY, MAXIMUM SLUMP SHALL BE BASED UPON ADMIXTURE MANUFACTURER'S RECOMMENDATIONS.
 - SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED. JOINT SURFACES SHALL BE ROUGHENED TO 1/4" [6mm] AMPLITUDE. THOROUGHLY WET ALL JOINT SURFACES AND REMOVE STANDING WATER PRIOR TO NEW PLACEMENT.
 - ALL HEADED AND HOOKED ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
 - ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN PLACE PRIOR TO PLACING CONCRETE.
 - RE-ENTRANT SLAB CORNERS AND RECTANGULAR OPENINGS IN SLABS: PROVIDE (2)-#4 x 4'-0" [1219mm] AT RE-ENTRANT SLAB CORNERS AND EACH CORNER OF RECTANGULAR OPENINGS IN SLABS. PLACE REBARS DIAGONALLY IN CENTER OF SLAB, RE: S3.3-14.
 - MECHANICAL, PLUMBING AND ELECTRICAL CONDUITS AND PENETRATIONS WHICH PASS THROUGH CONCRETE SHALL COMPLY WITH THE FOLLOWING:
 - INSTALL ANY SLEEVES BEFORE CONCRETE PLACEMENT.
 - DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT.
 - CORING OPENINGS IN CONCRETE IS NOT PERMITTED.
 - NO CONDUITS SHALL PASS THROUGH BEAMS, COLUMNS, FOOTINGS, STRUCTURAL SLABS OR WALL JAMBS UNLESS SPECIFICALLY DETAILED.
 - EMBEDDED CONDUITS, PIPES AND SLEEVES OUTSIDE DECKING SHALL NOT EXCEED 1/3 OF THE SLAB OR WALL THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING.
 - CONCENTRATIONS OF EMBEDDED ITEMS SHALL BE AVOIDED EXCEPT WHERE SPECIFICALLY DETAILED.
 - EMBEDDED ITEMS SHALL BE SPACED NO CLOSER THAN 3 DIAMETERS OR WIDTHS ON CENTER.
 - DO NOT PLACE ANY EMBEDDED ITEM WITHIN THE SLAB ON GRADE, LOCATE ITEM BELOW THE SLAB.
 - EMBEDDED ITEMS SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.
 - NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES AND DIMENSIONED LOCATIONS OF ALL PENETRATIONS AND EMBEDDED CONDUITS IN ELEVATED SLABS AND WALLS. SHOP DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
 - PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" [19mm] CHAMFER UNLESS SHOWN OR NOTED DIFFERENTLY ON ARCHITECTURAL DRAWINGS.
 - SLAB ON GRADE JOINTS: LOCATION OF ALL CONSTRUCTION AND CONTROL JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO THE PLACEMENT OF REINFORCEMENT. MAXIMUM SPACING SHALL BE 15 FEET [4572mm] ON CENTER.
 - CURING COMPOUNDS USED OVER CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.
 - ALL CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
 - GROUT BENEATH COLUMN BASE PLATES OR BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK FLOWABLE GROUT OR DRY PACK WITH A MINIMUM STRENGTH OF 7,500 PSI AND CONFORM TO ASTM C1107.
 - MINIMUM CLEAR COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
 - CONCRETE PLACED DIRECTLY AGAINST EARTH - 3 INCHES [76mm].
 - FORMED SURFACES: #6 BARS OR SMALLER - 1 1/2 INCHES [38mm].
#6 BARS OR LARGER - 2 INCHES [51mm].
 - STRUCTURAL SLABS - 1 INCH [25mm].
 - CONTRACTOR SHALL PROVIDE FORMS AND FRAMING AS REQUIRED FOR ELEVATED SLABS AT EXPOSED EDGES AND OPENINGS TO MAINTAIN EDGES STRAIGHT AND PLUMB AND TRUE.
 - REINFORCEMENT IN FOOTINGS & STEM WALLS SHALL BE CONTINUOUS AROUND CORNERS & INTERSECTIONS, RE: S3.1-3.
- REINFORCING STEEL:
 - ASTM A615, GRADE 60. BARS TO BE WELDED SHALL BE ASTM A706, GRADE 60.
 - LAP SPLICE AND DEVELOPMENT LENGTH, RE: S3.1-2. MAKE ALL BARS CONTINUOUS AROUND CORNERS OR PROVIDE CORNER BARS OF EQUAL SIZE AND SPACING.
 - FORM TIES SHALL BE EITHER THREADED OR THE SNAP-OFF TYPE SO THAT NO METAL WILL BE LEFT WITHIN ONE INCH OF THE WALL SURFACE. RECESSES ARE TO BE FILLED AND POINTED W/ MORTAR.
 - PROVIDE BAR SUPPORTS AND SPACERS FOR REINFORCEMENT. PROVIDE CHAIRS W/ 22 GA SAND PLATES OR PRECAST BLOCKS FOR ALL REINFORCING OF SLABS ON GRADE AND DECK CHAIRS FOR REINFORCEMENT IN SLABS OVER STEEL DECKING. SECURELY TIE REINFORCEMENT TO SUPPORTS.
 - DO NOT WELD ANY REINFORCEMENT UNLESS SPECIFICALLY DETAILED.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, $F_y=75,000$ PSI.
 - MECHANICAL SPICE COUPLERS SHALL HAVE AN APPROVED ICC OR IAPMO EVALUATION SERVICE REPORT AND CAPABLE OF DEVELOPING 125 PERCENT OF THE SPLICED BAR YIELD STRENGTH.
- STRUCTURAL STEEL:
 - STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO AISC 360 AND AISC 303 WITH MODIFICATIONS AS NOTED ON THE DRAWINGS OR CONSTRUCTION DOCUMENTS.
 - STRUCTURAL STEEL MEMBERS SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES:

SHAPE	STANDARD	F_y
ROLLED WIDE FLANGE SECTIONS	ASTM A992	50 KSI
 - OTHER MISC. STEEL SHAPES AND ROLLED SECTIONS
ASTM A36
36 KSI
OR
ASTM A572 (WHERE NOTED)
50 KSI
 - PIPES
ASTM A53, GRADE B
35 KSI
 - HOLLOW STRUC. SECTIONS (RECT.)
ASTM A500, GRADE B
46 KSI
HOLLOW STRUC. SECTIONS (ROUND)
ASTM A500, GRADE B
42 KSI
 - THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL FOR ARCHITECT AND STRUCTURAL ENGINEER REVIEW BEFORE FABRICATION.
 - ALL BOLT ASSEMBLIES SHALL BE IN ACCORDANCE WITH THE RSCC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
 - ALL BOLTS IN STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO ASTM A325 TYPE 1, UNLESS NOTED OTHERWISE IN THE DRAWINGS. NOTE BOLTS USED IN EXTERIOR APPLICATIONS EXPOSED TO THE ENVIRONMENT SHALL BE A325 TYPE 3.
 - BOLTS SHALL BE INSTALLED SNIP-TIGHT USING ANY RSCC SPECIFICATION APPROVED METHOD AS BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE SHEAR PLANE (TYPE X CONNECTION).
 - FOR BOLTED CONNECTIONS SUBJECTED TO DIRECT TENSION OR IN BRACED FRAMES, MOMENT FRAMES OR AS SPECIFIED IN THE DRAWINGS AS "SC" (SLIP-CRITICAL) OR PRE-TENSIONED SHALL BE INSTALLED TO ONE OF THE APPROVED METHODS IN SECTION 8.2 AND TO THE MINIMUM BOLT PRE-TENSION SPECIFIED IN TABLE 8.1 OF THE RSCC SPECIFICATION.
 - FOR BOLTED CONNECTIONS: NUTS SHALL CONFORM TO ASTM 563. WASHERS WHERE REQUIRED BY THE ASSEMBLY OR THE RSCC SPECIFICATION SHALL CONFORM TO ASTM F436.
 - TWIST-OFF TIE TENSION CONTROL BOLT ASSEMBLIES CONFORMING TO ASTM F1852 AND TO THE REQUIREMENTS OF THE RSCC SPECIFICATION MAY BE SUBSTITUTED FOR ALL ASTM A325 ASSEMBLIES AND SHALL BE THE SAME A325 BOLT TYPE SPECIFIED.
 - ALL BOLTED CONNECTIONS IN THE "SEISMIC LOAD RESISTING SYSTEM" (DESIGNATED IN DRAWINGS AS "SLRS") SHALL BE PRE-TENSIONED HIGH STRENGTH BOLTS AND SHALL MEET THE REQUIREMENTS FOR SLIP-CRITICAL FAYING SURFACE IN ACCORDANCE WITH AISC SPECIFICATION SECTION J3.8 WITH A CLASS "A" SURFACE.
 - ALL BOLTED PARTS SHALL BE MADE WITH STANDARD HOLES UNLESS OTHERWISE APPROVED IN WRITING FROM THE STRUCTURAL ENGINEER.
 - ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 36 OR GRADE 55 FOR WELDING APPLICATIONS. WASHERS FOR ANCHOR RODS SHALL CONFORM TO ASTM A36.
 - ANCHOR RODS AT STEEL COLUMN BASE PLATES SHALL BE THREADED EACH END WITH HEAVY HEX NUT FULLY THREADED ON THE EMBEDDED END. TACK WELD NUT TO ROD OR SPOIL THREADS TO PREVENT NUT FROM BACKING OFF. ANCHOR RODS SHALL NOT BE REPAIRED, REPLACED OR MODIFIED IN THE FIELD WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
 - HEADED CONCRETE ANCHORS (HCA) SPECIFIED ON DRAWINGS SHALL BE H4L BY NELSON STUD WELDING INC. OR EQUAL. HEADED CONCRETE ANCHORS SHALL MEET THE REQUIREMENTS OF ASTM A108 WITH MINIMUM ULTIMATE TENSILE STRENGTH OF 60 KSI AND MINIMUM YIELD STRENGTH OF 50 KSI. WELDING OF ANCHORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - DEFORMED BAR CONCRETE ANCHORS (DBA) SPECIFIED ON DRAWINGS SHALL BE D2L BY NELSON STUD WELDING, INC. PER ICC-ESR 2907. DEFORMED BAR CONCRETE ANCHORS TO BE FABRICATED FROM MATERIAL MEETING THE REQUIREMENTS OF ASTM A496 WITH MINIMUM TENSILE STRENGTH OF 80 KSI AND MINIMUM YIELD STRENGTH OF 70 KSI. WELDING OF ANCHORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - SHEAR STUDS SPECIFIED ON DRAWINGS SHALL BE BY NELSON STUD WELDING, INC. PER ICC-ESR 2856. SHEAR STUDS SHALL BE MANUFACTURED TO MEET THE REQUIREMENTS OF ASTM A108 WITH MINIMUM ULTIMATE TENSILE STRENGTH OF 65 KSI AND MINIMUM YIELD STRENGTH OF 51 KSI. WELDING OF ANCHORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - THREADED STUDS SPECIFIED ON DRAWINGS TO BE CPL BY NELSON STUD WELDING OR EQUAL. THREADED STUDS TO BE FABRICATED FROM MATERIAL MEETING THE REQUIREMENTS OF ASTM A108 WITH MINIMUM ULTIMATE TENSILE STRENGTH 55 KSI AND MINIMUM YIELD STRENGTH 50 KSI. THREADED STUDS TO BE WELDED PER MANUFACTURER'S RECOMMENDATIONS.
 - ALL WELDED ASSEMBLIES IN STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AWS D1.1 AND CONFORM TO THE PREQUALIFIED JOINT DETAILS CONTAINED IN THAT DOCUMENT. WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH AWS D1.4.
 - WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS FOR TYPE OF WELD SPECIFIED ON DRAWINGS OR DETAILS. WELD LENGTHS CALLED OUT ON DRAWINGS OR DETAILS ARE MINIMUM NET EFFECTIVE LENGTHS. WELD SIZE SHALL BE PER AISC 360 TABLE D2.4 MINIMUM, UNLESS A LARGER SIZE IS NOTED.
 - ALL WELDING SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.1 TABLE 3.1 WITH A MINIMUM TENSILE STRENGTH OF 70 KSI. WELDS BETWEEN REINFORCING BARS SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.1 TABLE 5.1 WITH A MINIMUM TENSILE STRENGTH OF 50 KSI. WELDS BETWEEN REINFORCING BARS AND STRUCTURAL STEEL SHALL USE PREQUALIFIED MATCHING FILLER METALS WITH A MINIMUM TENSILE STRENGTH OF 70 KSI. SEE WELD NOTES BELOW FOR ADDITIONAL FILLER METAL REQUIREMENTS IN MEMBERS AND CONNECTIONS IN THE "SEISMIC LOAD RESISTING SYSTEM".
 - WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. THE WPS SHALL BE SUBMITTED TO THE OWNER'S INSPECTION AGENCY FOR REVIEW PRIOR TO FABRICATION AND ERECTION. COPIES OF THE WPS SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND SPECIAL INSPECTORS.
 - WELDS SHALL BE SEQUENCED TO MINIMIZE RESIDUAL STRESS FROM WELD SHRINKAGE.
 - ALL COMPLETE JOINT PENETRATION (CJP) WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
 - ALL WELDS USED IN MEMBERS AND CONNECTIONS IN THE "SEISMIC LOAD RESISTING SYSTEM" (DESIGNATED IN DRAWINGS AS "SLRS") SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB (27 J) AT 0 °F (MINUS 18 °C) AS DETERMINED BY THE APPROPRIATE AWS AS CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION.
 - WHERE WELDS IN THE "SEISMIC LOAD RESISTING SYSTEM" (DESIGNATED IN DRAWINGS AS "SLRS") ARE DESIGNATED AS "DEMAND CRITICAL", THEY SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB (27 J) AT -20 °F (-29 °C) AS DETERMINED BY THE APPROPRIATE AWS CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION, AND 40 FT-LB (54 J) AT 70 °F (21 °C) AS DETERMINED BY APPENDIX X OR OTHER APPROVED METHOD, WHEN THE STEEL FRAME IS NORMALLY ENCLOSED AND MAINTAINED AT A TEMPERATURE OF 50 °F (10 °C) OR HIGHER. FOR STRUCTURES WITH SERVICE TEMPERATURES LOWER THAN 50 °F (10 °C), THE QUALIFICATION TEMPERATURE FOR APPENDIX X SHALL BE 20 °F (11 °C) ABOVE THE LOWEST ANTICIPATED SERVICE TEMPERATURE, OR AT A LOWER TEMPERATURE.
- STEEL JOISTS:
 - THE STEEL JOIST MANUFACTURER SHALL BE RESPONSIBLE FOR ALL ATTACHMENTS, CROSS BRACING, AND BRIDGING THAT IS NOT SHOWN ON PLAN.
 - LATERAL BRACING OF THE BOTTOM CHORD OF THE JOIST JOISTS SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - CEILING EXTENSIONS SHALL BE PROVIDED ON ALL JOISTS WHERE CEILING ARE INDICATED ON ARCHITECTURAL DRAWINGS. ALSO THE BOTTOM CHORDS OF THE JOIST NEED TO BE EXTENDED IN AREAS WHERE THE SUSPENDED WALLS ARE SUPPORTED CLOSE TO THE JOIST BEARING.
 - JOIST MANUFACTURER SHALL SUBMIT CALCULATIONS STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED, TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. JOIST SIZES INDICATED ON PLANS ARE FOR STANDARD UNIFORM LOADING CONDITIONS ONLY AND SHALL BE DESIGNED AS SPECIAL JOISTS, WHEN REQUIRED, DUE TO ADDITIONAL LOADS. ADDITIONAL LOADS DUE TO ROOF TOP UTILITIES/ SNOW LOADS/ SUSPENDED WALL LOADS, ETC. WHERE APPLICABLE MUST BE CONSIDERED FOR JOIST DESIGN.
 - DESIGN STEEL OPEN WEB JOISTS AND GIRDERS FOR THE FOLLOWING LOADS:

ROOF DEAD LOAD	20 PSF
CEILING DEAD LOAD	10 PSF, INCLUDED IN ROOF DEAD LOAD
ROOF SNOW LOAD	25 PSF MINIMUM NON-REDUCIBLE
NET UPLIFT WIND	15 PSF
 - OTHER LOADS AS INDICATED IN NOTES, PLANS AND DETAILS
 - JOIST DEFLECTIONS SHALL NOT EXCEED THE FOLLOWING MINIMUM REQUIREMENTS:

LIVE/SNOW LOAD:	1/360
TOTAL LOAD:	L/240

L = JOIST SPAN
 - JOIST MANUFACTURER SHALL DESIGN ALL JOISTS FOR AN ADDITIONAL 1000 LB. MINIMUM VERTICAL LOAD AT ANY PANEL LOCATION, TOP AND BOTTOM, ALONG THE LENGTH OF THE JOIST OR ACTUAL MECHANICAL UNIT/ SPRINKLER PIPING LOAD, WHICHEVER IS GREATER.
 - MINIMUM SPRINKLER MAIN LOADS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE BY OTHERS. VERIFY WEIGHT AND LOCATION OF ALL MECHANICAL UNITS AND SPRINKLER LOADS WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND FIRE PROTECTION PLANS.

4" [102mm] MAIN	20 PLF
6" [152mm] MAIN	35 PLF
8" [203mm] MAIN	50 PLF
 - ANCHOR EVERY END JOIST TO A WALL OR STRUCTURAL MEMBER AT EACH LINE OF BRIDGING.
 - ALL JOISTS SHALL HAVE 2 1/2" [64mm] BEARING DEPTHS.
 - JOIST DESIGNER SHALL CONSIDER ADDITIONAL DRIFTING SNOW LOAD ACCUMULATIONS AT ALL ROOF TOP EQUIPMENT, PARAPETS AND FRAMED WALL PROJECTIONS EXCEEDING 2'-0" [610mm] AND LENGTHS EXCEEDING 10'-0" [3048mm] AS SHOWN BELOW:
- STEEL FLOOR DECK:
 - USE W3 FORMLOK DECK (VERCO), 20 GA, PRIME PAINTED OR GALVANIZED IF TO BE PREPROFFED. DECK TO BE CONTINUOUS OVER THREE SPANS. MINIMUM BEARING OF DECK ON SUPPORTS SHALL BE 3". RE: FRAMING PLANS FOR CONCRETE TOPPING THICKNESS.
 - 3/4" DIA. x 5' H.C.A.'S AS NOTED ON PLANS BY [] GIVEN ADJACENT TO BEAM REFERENCE. ANCHORS TO BE UNIFORMLY DISTRIBUTED ALONG BEAM LENGTH.
 - THE FASTENING SHALL BE:

SIDE LAPS:	BUTTON PUNCH AT 24" [610mm] O.C.
ENDS:	(4) 5/8" DIA. ARC SPOT WELDS PER PANEL
BUILDING PERIMETER:	5/8" DIA. ARC SPOT WELDS AT 6" [152mm] O.C.
INTERMEDIATE SUPPORTS:	(4) 5/8" DIA. ARC SPOT WELDS PER PANEL
 - ALL OPENINGS GREATER THAN 12"x12" SHALL BE FRAMED IN ANGLES, COORDINATE WITH MECHANICAL PLAN FOR EXACT LOCATION, RE: S3.3-15.
 - THE ELEVATED CONC. DECK SHALL BE REINFORCED WITH 6X6-W1.4XW1.4 W.W.F. LOCATED 1" [25mm] FROM TOP OF CONCRETE.
 - CONTRACTOR SHALL PROVIDE POROUSTOPS AT ALL CONC. EDGE ABLE TO SUPPORT NET WEIGHT OF CONC. AND OTHER CONSTRUCTION LOADS W/ DEFLECTION NO MORE THAN 1/16" FROM HORIZONTAL, UNLESS NOTED OTHERWISE.
 - ARC SPOT WELDS MAY BE ELIMINATED WHERE THEY COINCIDE WITH SHEAR CONNECTORS.
- STEEL ROOF DECK:
 - TYPICAL ROOF DECK:
 - USE VERCO HSB-36 DECK, GALVANIZED. MINIMUM BEARING OF DECK ON SUPPORTS SHALL BE 2".
 - RE: ROOF FRAMING PLANS FOR ATTACHMENT REQUIREMENTS.
 - COORDINATE ALL OPENINGS IN THE ROOF DECK WITH MECHANICAL AND ARCHITECTURAL DISCIPLINE.
 - DECK MUST BE CONTINUOUS OVER 3 SPANS UNLESS OTHERWISE SHOWN.
 - ALL WELDS ON DECK EXPOSED TO WEATHER SHALL BE DE-SLAGGED, CLEANED AND TOUCHED-UP WITH A ZINC RICH PRIMER.
 - SUBSTITUTIONS:
 - "VERCO" PUNCHLOCK CAN BE USED IN LIEU OF TOP SEAM WELDS AT SAME SPACING
- STRUCTURAL COLD FORMED STEEL FRAMING:
 - ALL STRUCTURAL MEMBERS SHALL HAVE A MIN. YIELD STRENGTH OF $F_y=50$ KSI.
 - ALL CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE) AND SHALL BE 1/16" MIN. FILLET WELDS & 1/8" MIN. FLARE BEVEL WELDS. IF A CERTAIN CONNECTION IS NOT DETAILED, USE A SIMILAR DETAIL.
 - MINIMUM NET EFFECTIVE SECTION PROPERTIES SHALL BE AS FOLLOWS:

STRUCTURAL LIGHT GAUGE STEEL FRAMING SCHEDULE				
MINIMUM NET EFFECTIVE SECTION PROPERTIES				
SIZE AND GAUGE	AREA IN ²	S_x IN ³	I_x IN ⁴	F_y KSI (MN)
600S200-54	.613	1.106	.331	50
358S200-54	.479	.568	1.03	50
 - TYPICAL STUD SPACING SHALL BE 16" O.C. UNLESS NOTED OTHERWISE ON PLANS
 - PROVIDE STRAP/BLOCKING AT 4'-0" O.C. FULL HEIGHT OF WALLS PER S3.3-11, TYP. RE: S3.2-2, S3.3-1 & S3.3-2 FOR TYPICAL HEAD, SILL, AND JAMB DETAILING.
 - CW/ ARCH. FOR ALL NON-STRUCTURAL STUD WALL FRAMING.
- POST INSTALLED ANCHORS (EXPANSION OR SCREW TYPE):
 - POST INSTALLED EXPANSION ANCHORS FOR CONCRETE CONSTRUCTION SHALL BE HILTI KWIK BOLT 12" ANCHOR WITH APPROVED EVALUATION SERVICE REPORT, ESR-1917.
 - POST INSTALLED ANCHORS TO BE INSTALLED ONLY WHERE SPECIFICALLY DETAILED OR NOTED ON PLANS. SUBSTITUTIONS SHALL ONLY BE PERMITTED WITH PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
 - MINIMUM NOMINAL EMBEDMENT LENGTH SHALL BE AS FOLLOWS UNLESS DETAILED OTHERWISE:

ANCHOR DIAMETER (IN)	MIN EMBEDMENT (IN)
2 5/16	5 1/8
3/8	3 5/8
1/2	4 7/16
5/8	5 9/16
1	6 1/2
 - ALL POST INSTALLED ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THE APPROVED EVALUATION SERVICE REPORT.
 - SPECIAL INSPECTION SHALL BE REQUIRED DURING POST INSTALLED ANCHOR INSTALLATION IN ACCORDANCE WITH THE EVALUATION SERVICE REPORT AND SECTION 1704 OF THE IBC.
- ADHESIVE ANCHORS AND DOWELS:
 - ADHESIVE FOR ANCHORS AND REBAR DOWELS IN CONCRETE CONSTRUCTION SHALL BE HILTI HIT-RE 500 SD EPOXY ADHESIVE WITH APPROVED ICC EVALUATION SERVICE REPORT, ESR-2322.
 - ADHESIVE FOR ANCHORS AND REBAR DOWELS IN MASONRY CONSTRUCTION SHALL BE HILTI HIT-HY 150 MAX EPOXY ADHESIVE WITH APPROVED ICC EVALUATION SERVICE REPORT, ESR-1967.
 - ADHESIVE FOR ANCHORS AND REBAR DOWELS IN BRICK CONSTRUCTION SHALL BE HILTI HIT-HY 70 ADHESIVE ANCHOR SYSTEM WITH APPROVED ICC EVALUATION SERVICE REPORT, ESR-3342.
 - ADHESIVE ANCHORS AND DOWELS TO BE INSTALLED ONLY WHERE SPECIFICALLY DETAILED OR NOTED ON PLANS. SUBSTITUTIONS SHALL ONLY BE PERMITTED WITH PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
 - ALL ADHESIVE ANCHORS AND DOWELS SHALL BE INSTALLED PER THE APPROVED EVALUATION SERVICE REPORT AND THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
 - SPECIAL INSPECTION SHALL BE REQUIRED DURING ADHESIVE ANCHOR INSTALLATION IN ACCORDANCE WITH EVALUATION SERVICE REPORT AND SECTION 1704 OF THE IBC.

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531-320_30X42TLBK.dwg

DRAWING TITLE

STRUCTURAL NOTES

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

PROJECT TITLE

BOISE VAMC
BUILDING 67 EXPANSION

BUILDING NUMBER

67

LOCATION

VAMC BOISE, IDAHO

DATE

07/12/2013

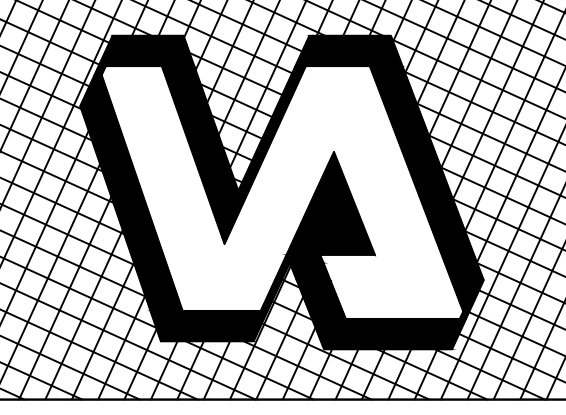
PROJECT NO.
531-320

DRAWING NO.

S0.1

DWG

53 OF 190



STRUCTURAL NOTES

12. LOW VELOCITY FASTENERS (PIN TYPE):
- A. POST INSTALLED PIN TYPE FASTENERS FOR CONCRETE CONSTRUCTION SHALL BE HILTI "X-U" LOW VELOCITY POWDER DRIVEN FASTENERS WITH APPROVED ICC EVALUATION SERVICE REPORT, ESR-2269.
- B. POST INSTALLED PIN TYPE FASTENERS TO BE INSTALLED ONLY WHERE SPECIFICALLY DETAILED OR NOTED ON PLANS.
- C. SHANK DIAMETER SHALL BE 0.157 INCHES [4 mm] AND EMBEDDED IN CONCRETE MINIMUM 1 1/4 INCHES [32 mm]. SEE PLANS AND DETAILS FOR SPACING REQUIREMENTS.
- D. INSTALL FASTENERS PER THE APPROVED EVALUATION SERVICE REPORT AND THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.

13. SPECIAL INSPECTION - GENERAL CONSTRUCTION:
- A. AN INDEPENDENT SPECIAL INSPECTION AGENCY SHALL BE EMPLOYED BY THE CONTRACTOR TO REPRESENT THE OWNER TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THIS SECTION. THESE SPECIAL INSPECTIONS ARE IN ADDITION TO THE STANDARD INSPECTIONS IDENTIFIED IN IBC SECTION 110. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL. SPECIALLY INSPECTED WORK THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL AND THE SPECIAL INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.
- B. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. ALL SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH IBC SECTION 1704.
- C. SPECIAL INSPECTION IS REQUIRED OF THE MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS TO ENSURE COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.
- D. SPECIAL INSPECTION REPORTS SHALL BE IN ACCORDANCE WITH SECTION 1704.1.2 OF THE IBC.
- E. CONTINUOUS SPECIAL INSPECTION SHALL BE THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR
- F. WHO IS PRESENT IN THE AREA WHERE THE WORK IS TO BE PERFORMED.
- G. PERIODIC SPECIAL INSPECTION SHALL BE PART-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF WORK.
- H. TYPES OF WORK REQUIRING SPECIAL INSPECTIONS ARE AS FOLLOWS:

ITEM	TYPE OF INSPECTION
1. INSPECTION OF REINFORCING STEEL, SIZE AND PLACEMENT	PERIODIC
2. INSPECTION OF REINFORCING STEEL WELDING PER STRUCTURAL STEEL	PERIODIC
3. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	CONTINUOUS
4. INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	PERIODIC
5. VERIFY USE OF REQUIRED DESIGN MIX	PERIODIC
6. SAMPLING OF FRESH CONCRETE, PERFORMING SLUMP AND AIR CONTENT TESTS, AND DETERMINING CONCRETE TEMPERATURE	CONTINUOUS
7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES AND TECHNIQUES	CONTINUOUS
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE	PERIODIC
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC

I. STEEL CONSTRUCTION AS REQUIRED IN IBC SECTION 1704.3 AND TABLE 1704.3:

ITEM	TYPE OF INSPECTION
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:	PERIODIC
a. IDENTIFICATION MARKINGS CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC
2. INSPECTION OF HIGH-STRENGTH BOLTING:	PERIODIC
a. SNUG-TIGHT JOINTS	PERIODIC
b. PRETENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH-MARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	PERIODIC
c. PRETENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCH-MARKING OR CALIBRATED WRENCH METHODS	CONTINUOUS
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:	PERIODIC
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM WITH AISC 360.	PERIODIC
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC
c. MANUFACTURER'S CERTIFIED TEST REPORTS	PERIODIC
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:	PERIODIC
a. IDENTIFICATION MARKINGS CONFORM TO AWS	PERIODIC
b. SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC
c. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC
5. INSPECTION OF WELDING:	PERIODIC
a. STRUCTURAL STEEL AND COLD-FORMED DECK:	PERIODIC
1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	CONTINUOUS
2) MULTI-PASS FILLET WELDS	CONTINUOUS
3) SINGLE-PASS FILLET WELDS > 5/16"	CONTINUOUS
4) PLUG AND SLOT WELDS	CONTINUOUS
5) SINGLE-PASS FILLET WELDS < OR = 5/16"	PERIODIC
6) FLOOR AND ROOF DECK WELDS	PERIODIC
b. REINFORCING STEEL	PERIODIC
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.	PERIODIC
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	CONTINUOUS
3) SHEAR REINFORCEMENT	CONTINUOUS
4) OTHER REINFORCING STEEL	PERIODIC
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:	PERIODIC
a. DETAILS SUCH AS BRACING AND STIFFENING	PERIODIC
b. MEMBER LOCATIONS	PERIODIC
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION	PERIODIC

- J. ADHESIVE EPOXY ANCHORS/DOWELS:
- CONCRETE CONSTRUCTION
- MASONRY CONSTRUCTION
- ITEM
1. ADHESIVE IDENTIFICATION AND EXPIRATION DATE.
2. ANCHOR BOLT OR REBAR MATERIAL, GRADE, DIAMETER, LENGTH AND CLEANLINESS.
3. CONCRETE TYPE, THICKNESS AND COMPRESSIVE STRENGTH OR, CONCRETE MASONRY UNIT, GROUT AND MORTAR TYPE, THICKNESS AND COMPRESSIVE STRENGTH.
4. HOLE DRILLING METHOD, HOLE DIMENSIONS AND CLEANLINESS.
5. ADHESIVE MIXING AND INSTALLATION PROCEDURES.
6. INSTALLATION DESCRIPTION INCLUDING SUBSTRATE TEMPERATURE AT TIME OF ANCHOR INSTALLATION.
7. VERIFICATION OF ANCHOR SPACING, EDGE DISTANCES, EMBEDMENT AND TIGHTENING TORQUE.
8. ADHERENCE TO THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND EVALUATION SERVICE REPORT.

- K. POST-INSTALLED ANCHORS (EXPANSION, SCREW TYPE):
- CONCRETE CONSTRUCTION
- MASONRY CONSTRUCTION
- ITEM
1. ANCHOR IDENTIFICATION AND DIMENSIONS.
2. CONCRETE TYPE, THICKNESS AND COMPRESSIVE STRENGTH OR, CONCRETE MASONRY UNIT, GROUT AND MORTAR TYPE, THICKNESS AND COMPRESSIVE STRENGTH.
3. HOLE DRILLING METHOD, VERIFICATION OF DRILL BIT SIZE AND TYPE, HOLE DIMENSIONS AND CLEANLINESS.
4. VERIFICATION OF ANCHOR SPACING, EDGE DISTANCES, EMBEDMENT AND TIGHTENING TORQUE.
5. ADHERENCE TO THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND EVALUATION SERVICE REPORT.

- L. SOILS
- ITEM
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.

- M. HELICAL PILE FOUNDATIONS
- HELICAL PILE FOUNDATION INSTALLATION
- ITEM
1. INSTALLATION EQUIPMENT USED.
2. PILE DIMENSIONS.
3. TIP ELEVATIONS.
4. FINAL DEPTH.
5. FINAL INSTALLATION TORQUE.
6. HELICAL PILE CONNECTIONS/ANCHORAGE TO PIER CAP FOUNDATION.
7. OTHER INSTALLATION DATA REQUIRED BY GEOTECHNICAL ENGINEER.

N. SEISMIC RESISTANCE

STRUCTURAL STEEL MOMENT FRAMES:

- ITEM
1. SPECIAL INSPECTIONS AND TESTING SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC 341.
2. NON-DESTRUCTIVE TESTING METHODS, LOCATIONS AND FREQUENCIES SHALL BE ACCORDANCE WITH TABLES 1 AND 2 ON THIS SHEET.

TABLE 1. NON-DESTRUCTIVE TEST LOCATIONS

ITEM	REQUIRED LOCATIONS	OMF	IMF	SMF
1.	C/JP GROOVE WELD ULTRASONIC TEST SHALL BE PERFORMED ON ALL C/JP GROOVE WELDS IN MATERIALS 5/16 INCH [8mm] THICK OR GREATER. IN ADDITION, MAGNETIC PARTICLE TEST SHALL BE PERFORMED ON ALL BEAM-TO-COLUMN C/JP GROOVE WELDS.	B	A	A
2.	"K" AREA WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, THE WEB SHALL BE TESTED FOR CRACKS USING MAGNETIC TESTING. THE MAGNETIC PARTICLE TEST AREA SHALL INCLUDE THE K-AREA BASE METAL WITHIN 3IN. [75mm] OF THE WELD.	C	B	B
3.	BEAM COPES AND ACCESS HOLE AT WELDED SPICES AND CONNECTIONS, THERMALLY CUT SURFACES OF BEAM COPES AND ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING WHEN FLANGE THICKNESS EXCEEDS 1-1/2 IN. [38mm] FOR ROLLED SHAPES.	C	B	B
4.	REDUCED BEAM SECTION REPAIR MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON ANY WELD AND ADJACENT AREA OF THE RBS PLASTIC HINGE REGION THAT HAS BEEN REPAIRED BY WELDING OR ON THE BASE METAL OF THE RBS PLASTIC HINGE REGION IF A SHARP NOTCH HAS BEEN REMOVED BY GRINDING.	B	B	A
5.	BASE METAL LAMELLAR TEARING AND LAMINATIONS - AT C/JP GROOVE WELD BASE METAL THICKER THAN 1-1/2 IN. [38mm] SHALL BE ULTRASONICALLY TESTED FOR DISCONTINUITIES BEHIND AND ADJACENT TO THE FUSION LINE WHEN THE BASE METAL IS LOADED IN TENSION IN THE THROUGH THICKNESS DIRECTION IN TEE AND CORNER JOINTS AND THE CONNECTED MATERIAL IS GREATER THAN 3/4 IN. [19mm] THICK. ANY BASE METAL DISCONTINUITIES FOUND WITHIN 1/4 OF THE STEEL SURFACE SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF AWS D1.1 TABLE 6.2, WHERE T IS THE THICKNESS OF THE PART SUBJECTED TO THE THROUGH-THICKNESS STRAIN.	B	B	A
6.	END OF WELD AT WELD TAB REMOVAL SITE MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON THE END OF WELDS FROM WHICH THE WELD TABS HAVE BEEN REMOVED, EXCEPT FOR CONTINUITY PLATE WELD TABS.	C	B	B
7.	PJP GROOVE WELD ULTRASONIC TESTING SHALL BE PERFORMED ON PJP GROOVE WELDS USED IN COLUMN SPICES WITH AN EFFECTIVE THROAT OF 3/4 IN. [19mm] THICK OR GREATER.	C	B	A

NOTE:

1. A, B, AND C ARE THE FREQUENCIES OF NON-DESTRUCTIVE TESTS LISTED IN TABLE 2.
2. OMF = ORDINARY MOMENT FRAME; IMF = INTERMEDIATE MOMENT FRAME; SMF = SPECIAL MOMENT FRAME.
3. SEE SHEET S0.1 DESIGN INFORMATION NOTES FOR PROJECT MOMENT FRAME DESIGNATION LISTED FOR BASIC SEISMIC FORCE RESISTING SYSTEM.

TABLE 2. NON-DESTRUCTIVE TEST FREQUENCY

	FREQUENCY DESIGNATION		
	A	B	C
ULTRASONIC TESTING (UT)	100% OF JOINTS	50% OF JOINTS	25% OF JOINTS
MAGNETIC PARTICLE TESTING (MT)	50% OF JOINTS	25% OF JOINTS	NOT REQUIRED

NOTE:

1. REFER TO TABLE 1 FOR LOCATIONS OF NON-DESTRUCTIVE TESTING.

14. STRUCTURAL OBSERVATION:
- A. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH IBC SECTION 1710.
- B. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR SPECIAL INSPECTIONS OR OTHER INSPECTIONS REQUIRED BY THE BUILDING CODE OR AUTHORITY JURISDICTION.
- C. AN APPROVED STRUCTURAL OBSERVER SHALL BE EMPLOYED BY THE CONTRACTOR TO REPRESENT THE OWNER TO PERFORM THE STRUCTURAL OBSERVATIONS. THE STRUCTURAL OBSERVER SHALL BE A REGISTERED DESIGN PROFESSIONAL, REGISTERED IN THE STATE OF PROJECT LOCATION, QUALIFIED AND COMPETENT TO OBSERVE THE ELEMENTS NOTED IN THIS SECTION.
- D. THE OWNER SHALL COORDINATE AND CALL A PRE-CONSTRUCTION MEETING BETWEEN THE STRUCTURAL OBSERVER, STRUCTURAL ENGINEER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND SPECIAL INSPECTOR(S). THE PURPOSE OF MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS.
- E. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE LISTED SIGNIFICANT CONSTRUCTION STAGES ON THE FOLLOWING TABLE BELOW REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.
- F. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT FOR EACH STAGE OF CONSTRUCTION OBSERVED. OBSERVED DEFICIENCIES SHALL BE CLEARLY NOTED ON THE REPORT AND ALL REMEDIAL ACTION REQUIRED TO CORRECT THE CONDITION SHALL BE ATTACHED TO REPORT. NOTE REMEDIAL WORK WILL REQUIRE REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
- G. A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.
- H. STRUCTURAL ELEMENTS REQUIRING OBSERVATION:

ELEMENT	ITEMS TO BE OBSERVED
HELICAL PILE FOUNDATIONS	TYPE, MANUFACTURER, SIZE, LOCATIONS, PILE INSTALLATION CAPACITIES, CONNECTIONS
FOUNDATION	SIZE, GRADE AND PLACEMENT OF REINFORCEMENT, STRENGTH OF CONCRETE MIX, ANCHOR BOLT SIZE AND SPACING
GRADE BEAMS	SIZE, GRADE AND PLACEMENT OF REINFORCEMENT, STRUCTURAL STEEL AND ASSOCIATED CONNECTIONS, STRENGTH OF CONCRETE MIX
STRUCTURAL STEEL	MOMENT FRAMES, CONNECTIONS
DIAPHRAGMS AND CHORDS	DECK SIZE AND GAGE, WELD PATTERN, SIDELAP CONNECTIONS, REINFORCEMENT SIZE AND LOCATIONS, CHORD ELEMENTS AND CONNECTIONS
VERTICAL LOAD SUPPORT ELEMENTS	BEAMS, COLUMNS, CONNECTIONS, HARDWARE

15. MASONRY:
- A. ALL MASONRY UNITS SHALL CONFORM TO ASTM C90 FOR LOAD BEARING CONCRETE MASONRY UNITS AND SHALL BE HOLLOW CONCRETE BLOCK, MEDIUM WEIGHT DENSITY 115 PCF.
- B. MASONRY UNIT COMPRESSIVE STRENGTH ON NET AREA SHALL BE 1900 PSI.
- C. MORTAR COMPRESSIVE STRENGTH SHALL BE 1800 PSI AT 28 DAYS.
- D. GROUT COMPRESSIVE STRENGTH SHALL BE 2000 PSI AT 28 DAYS.
- E. SPECIFIED COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY, f_m, SHALL BE 1500 PSI.
- F. PRISM TEST METHOD SHALL BE USED TO DETERMINE COMPRESSIVE STRENGTH OF MASONRY AS OUTLINED IN IBC SECTION 2105.2.2.2.
- G. CEMENT SHALL THE SAME USED AS THAT SPECIFIED FOR CONCRETE.
- H. REINFORCING BARS - SEE NOTES UNDER 'REINFORCING STEEL' FOR REQUIREMENTS. ALL REINFORCING SHALL MEET ASTM A615, GRADE 60.
- I. HEADED AND HOOKED ANCHOR BOLTS USED IN MASONRY CONSTRUCTION SHALL CONFORM TO ASTM A307.
- J. MORTAR, ASTM C-270, TYPE S AND SHALL CONFORM TO THE REQUIREMENTS OF IBC SECTION 2103.8.
- K. GROUT SHALL CONFORM TO THE REQUIREMENTS OF IBC SECTION 2103.12 AND ASTM C476. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL CELLS OF THE MASONRY WITHOUT SEGREGATION. GROUT SHALL BE 1-1/2 INCHES BELOW TOP OF BLOCK AT GROUT LIFT JOINTS. FLY ASH IS NOT PERMITTED IN GROUT.
- L. GROUT AND MORTAR MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BE SEALED BY A PROFESSIONAL CIVIL ENGINEER REGISTERED IN THE STATE OF PROJECT LOCATION. THE MIXES WILL BE REVIEWED BY THE STRUCTURAL ENGINEER.
- M. MASONRY CONSTRUCTION SHALL CONFORM TO IBC SECTION 2104 AND ACI 530, 530.1.
- N. PROTECTION OF MASONRY REINFORCEMENT SHALL BE AS FOLLOWS UNLESS DETAILED OTHERWISE:
- MASONRY FACE EXPOSED TO EARTH OR WEATHER, #5 AND SMALLER BARS 1 1/2 IN
- MASONRY FACE EXPOSED TO EARTH OR WEATHER, LARGER THAN # 5 BARS 2 IN
- MASONRY NOT EXPOSED TO EARTH OR WEATHER 1 1/2 IN
- O. PROVIDE A MINIMUM OF 1/2 INCH OF GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS. PROVIDE 1 INCH OF GROUT BETWEEN REBARS RUNNING PARALLEL. PROVIDE 1-1/2 INCHES OF GROUT BETWEEN VERTICAL REBARS IN COLUMNS AND PILASTERS.
- P. BED JOINT THICKNESS SHALL NOT EXCEED 5/8 INCH.
- Q. ALL CELLS IN CONCRETE MASONRY UNITS SHALL BE FILLED SOLID WITH GROUT, UNLESS NOTED OTHERWISE IN DRAWINGS.
- R. GROUT SHALL BE CONSOLIDATED AT TIME OF PLACEMENT BY MECHANICAL VIBRATION AND THEN RECONSOLIDATED BEFORE PLASTICITY IS LOST.
- S. PROVIDE CLEANOUTS IN BOTTOM COURSE VERTICAL REINFORCEMENT LOCATIONS FOR POURS OVER 5 FEET. ALL UNITS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION WITH CONCAVE COMPRESSED JOINTS UNLESS NOTED OTHERWISE IN DRAWINGS. SEE ALSO ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF MASONRY UNITS, LAYING PATTERN AND JOINT TYPE. USE INVERTED BOND BEAM UNITS FOR STARTING COURSES.
- T. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS FROM FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.
- U. REINFORCEMENT SHALL BE SECURED IN PROPER POSITION WITHIN CELL TO PREVENT HORIZONTAL DISPLACEMENT PRIOR TO GROUTING USING REBAR POSITIONS OR OTHER SUITABLE DEVICES AT INTERVALS NOT TO EXCEED 5 FEET.
- V. REINFORCEMENT CONGESTION: USE DOUBLE OPEN END BLOCKS OR U BLOCKS TO FACILITATE CONSTRUCTION.
- W. VERTICAL CONTROL JOINTS SHALL BE LOCATED BETWEEN 20 FEET AND 25 FEET MAXIMUM ON CENTER, UNLESS NOTED OTHERWISE ON DRAWINGS OR DETAILS. SEE ALSO ARCHITECTURAL DRAWINGS FOR LOCATIONS.
- X. ALL BASEMENT AND RETAINING WALLS SHALL BE DAMPPROOFED AND WATERPROOFED IN ACCORDANCE WITH IBC SECTION 1805.
- Y. MINIMUM VERTICAL REINFORCEMENT SHALL BE #5 REBAR FULL HEIGHT IN CENTER OF GROUTED CELL AND AT INTERVALS NOT TO EXCEED 48 INCHES ON CENTER, UNLESS NOTED OTHERWISE ON DRAWINGS OR DETAILS.
- Z. SEE PLANS FOR TYPICAL VERTICAL REINFORCEMENT AND SPACING REQUIREMENTS. PROVIDE #5 REBAR FULL HEIGHT IN CENTER OF GROUTED CELL AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, JAMBS AT WALL OPENINGS, AT EACH SIDE OF CONTROL JOINTS, UNLESS NOTED OTHERWISE ON DRAWINGS OR DETAILS.
- AA. MINIMUM HORIZONTAL REINFORCEMENT SHALL BE 2-#5 REBARS AT FLOOR AND ROOF LINES AND 1-#5 AT TOP OF WALL OR PARAPET AND AT INTERVALS NOT TO EXCEED 48 INCHES ON CENTER, UNLESS NOTED OTHERWISE ON DRAWINGS OR DETAILS. PLACE REBARS CONTINUOUS THROUGH CONTROL JOINTS AT FLOOR, ROOF LINES AND TOP OF WALL/PARAPET.
- AB. MINIMUM UNTEL REINFORCEMENT, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS, SHALL BE 2-#5 REBARS CONTINUOUS IN BOTTOM OF 24 INCH DEEP GROUTED BOND BEAM. SILLS SHALL BE REINFORCED WITH 1-#5 IN GROUTED BOND BEAM. EXTEND ALL REINFORCEMENT 30 INCHES PAST OPENINGS IN GROUTED CELLS.
- AC. ALL REINFORCEMENT SHALL HAVE A MINIMUM LAP SPLICE OF 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE ON DRAWINGS OR DETAILS. STAGGER ALL HORIZONTAL REBAR SPLICES.
- AD. MECHANICAL PLUMBING AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS SHALL COMPLY WITH THE FOLLOWING:
1. INSTALL ANY SLEEVES BEFORE GROUTING.
2. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT.
3. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED.
4. DO NOT EMBED IN MASONRY ANY CONDUITS RUNNING PARALLEL WITH WALLS.
5. NO CONDUITS SHALL PASS THROUGH MASONRY UNTELS, COLUMNS OR JAMBS UNLESS SPECIFICALLY DETAILED.
6. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

REVISIONS	DATE

CSH6A

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GERALD G. GUNTY, P.E.
C.W. MOORE PLAZA
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CAD FILE NAME:
531-320_S02.dwg
XREF FILE NAME:
531-320_30X42TLBK.dwg

DRAWING TITLE	
STRUCTURAL NOTES	
APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE	
APPROVED: MEDICAL CENTER DIRECTOR	

PROJECT TITLE	
BOISE VAMC BUILDING 67 EXPANSION	
BUILDING NUMBER	CHECKED
67	GGG
LOCATION	DRAWN
VAMC BOISE, IDAHO	EP/GG

DATE
07/12/2013
PROJECT NO.
531-320
DRAWING NO.
S0.2
DWG 54 OF 190





A. EXISTING FOUNDATIONS: NEW FOUNDATION FOR EXPANSION TO BE PLACED ADJACENT TO EXISTING FOUNDATION SYSTEM. THERE IS LIMITED INFORMATION REGARDING THE EXISTING FOOTING CONDITIONS. IT IS ANTICIPATED THAT SOME MODIFICATION OF THE NEW FOUNDATION SYSTEM WILL BE REQUIRED TO ACCOMMODATE THE EXISTING FOOTINGS. PRIOR TO INSTALLATION OF HELICAL PIER ANCHORS AT LOCATIONS SHOWN ON PLAN, EXPOSE AND VERIFY EXISTING ELEVATIONS AND CLEARANCE TO EXISTING FOOTINGS. COORDINATE WITH THE COTR AND STRUCTURAL ENGINEER TO DETERMINE THE MODIFICATIONS REQUIRED IF ANY.

B. HELICAL PILE FOUNDATION SYSTEM DESIGNED AND DETAILED BY OTHERS. SEE PROJECT GEOTECHNICAL REPORT REVISED ADDENDUM #1 FOR REQUIREMENTS.

C. HELICAL PILES SHALL EXTEND AT LEAST 10 FEET [3048mm] BELOW THE BOTTOM OF THE NEW AND EXISTING FOUNDATIONS AND MUST BE DESIGNED TO SUPPORT LOADS SHOWN ON PLAN. THE CENTER TO CENTER SPACING SHALL BE AT LEAST 36 INCHES [914mm] OR 3 HELIX DIAMETERS (BASED UPON LARGEST HELIX DIAMETER USED) WHICHEVER IS GREATER.

D. HELICAL PILES:

INDICATES HELICAL PILE LOCATION.

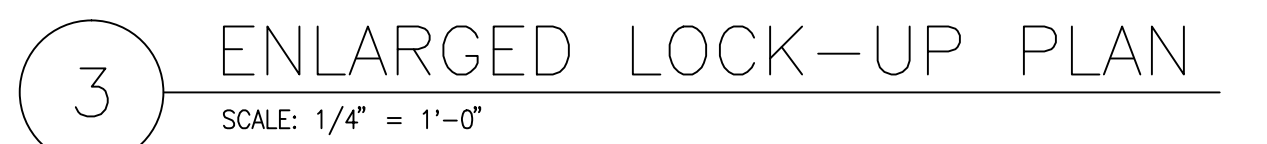
INDICATES MINIMUM HELICAL PILE CAPACITY IN KIPS (SERVICE LOAD), TYP.


INDICATES HELICAL PILE BATTERED 10 DEGREES FROM HORIZONTAL IN DIRECTION SHOWN.

1. W14x193 COLUMN
2. HSS4x4x1/4
3. NOT USED
4. W14x145 COLUMN.
5. W14x61 COLUMN.

TYPE	SIZE	REINFORCING
MW1	8" NOM. THICK	VERTICAL, FULL WALL HT.: #5 AT 24" O.C., SINGLE LAYER, CENTERED HORIZONTAL REINF., #5 AT 48" O.C., SINGLE LAYER, CENTERED SOLID GROUT CONSTRUCTION.
FOR MASONRY WALL CORNERS & ENDS, RE: DETAIL S3.1-4.		

SCALE: 1/8" = 1'-0"





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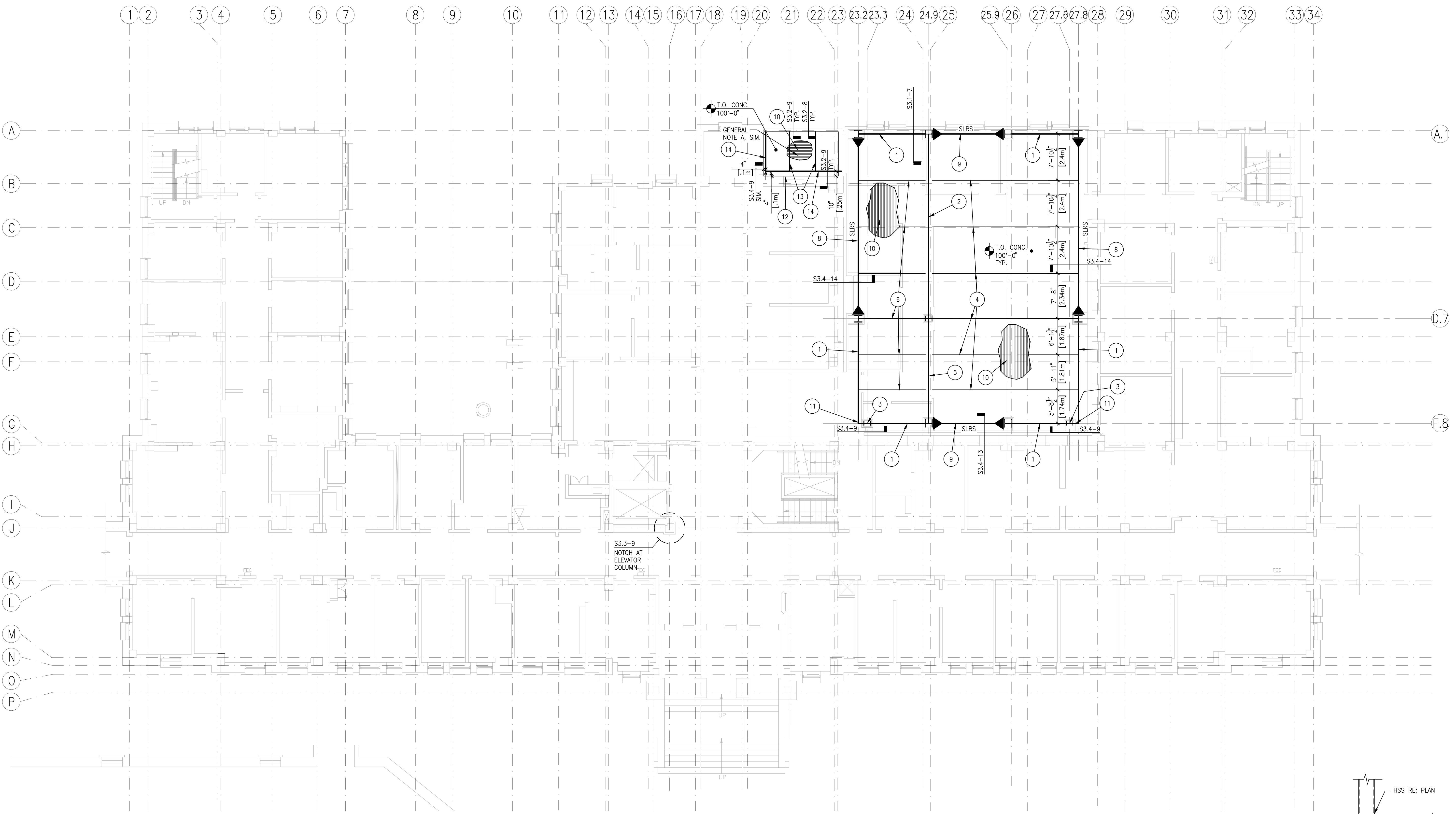
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531-320_30X42TLBK.dwg
531-320_67GRID.dwg

PROJECT TITLE		
BOISE VAMC BUILDING 67 EXPANSION		
BUILDING NUMBER	CHECKED	DRAWN
67	GG	EP
LOCATION		
VAMC BOISE, IDAHO		



DEPARTMENT OF VETERANS AFFAIRS

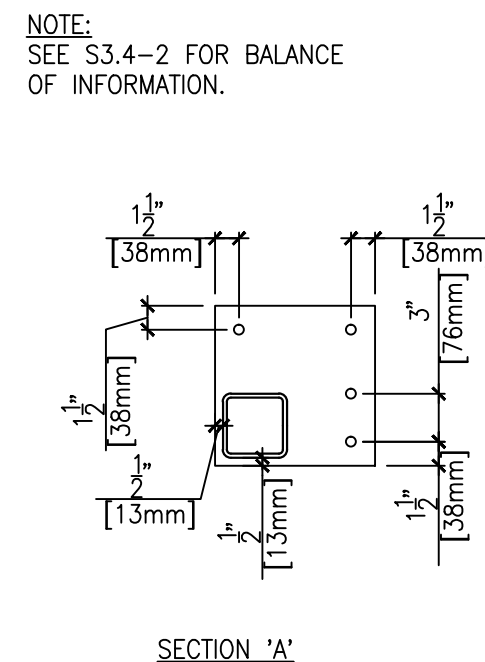
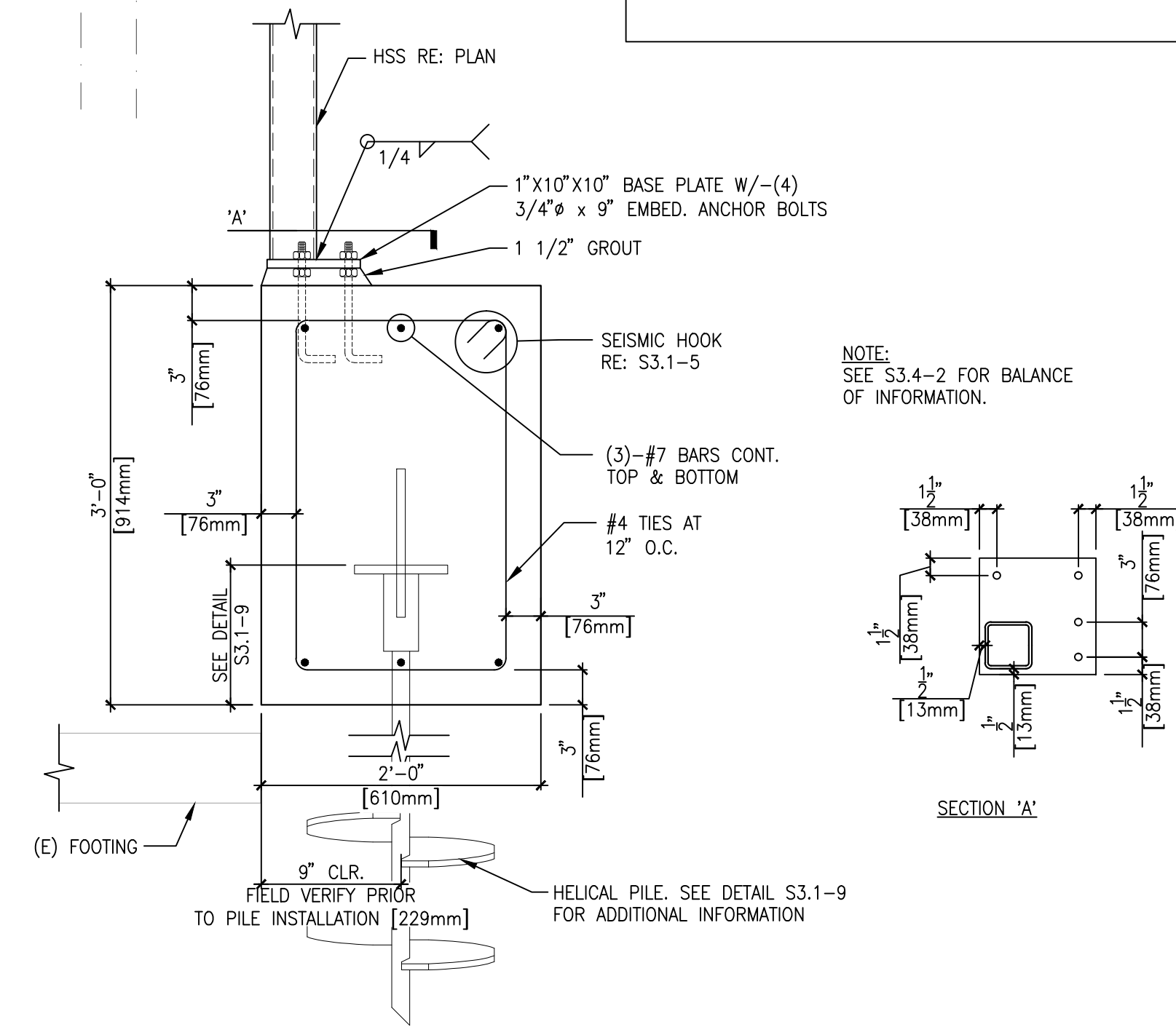
ONE EIGHTH INCH = ONE FOOT
ONE QUARTER INCH = ONE FOOT
ONE HALF INCH = ONE FOOT
THREE EIGHTHS INCH = ONE FOOT
THREE QUARTERS INCH = ONE FOOT
ONE INCH = ONE FOOT
ONE AND ONE HALF INCHES = ONE FOOT
THREE INCHES = ONE FOOT



- GENERAL NOTES:**
- A. ELEVATED CONC. DECKS:
 - 3" [76mm] DEEP W3 FORMLOK DECK, 20GA. BY VERO, W/ 3" [76mm] NORMAL WEIGHT CONC. TOPPING (6" [152mm] TOTAL THICKNESS)
 - REINF. W/ 6X6 W1.4XW1.4 WWF HELD 1" [25mm] FROM TOP OF CONC.
 - TYPICAL STEEL DECK ATTACHMENTS TO FRAMING SHALL BE: SUPPORTS PERPEND. TO DECK SPAN - (4) 5/8" DIA. PUDDLE WELDS PER SHEET
 - SUPPORTS PARALLEL TO DECK SPAN - 5/8" DIA. PUDDLE WELDS AT 6" [152mm] O.C.
 - SIDE LAP CONNECTIONS - BUTT JUNCTIONS AT 24" [610mm] O.C.
 - DECK SHALL BE CONT. OVER (3) SPANS, MIN. EXCEPT AT SIM.
 - B. FRAMING CONNECTIONS:
 - MOMENT FRAME CONNECTION, SEE DETAIL S3.4-4.
 - SLRS = SEISMIC LOAD RESISTING SYSTEM, SEE STRUCTURAL STEEL NOTES ON SHEET S0.1
 - STANDARD FRAME CONNECTION U.N.O., SEE DETAIL S3.2-12.
 - C. RE: S3.2-7 TYPICAL BEAM-BEAM CONNECTION.
 - D. RE: S3.2-6 TYPICAL BEAM/GIRDER TO COL. CONNECTION.
 - E. [#] DENOTES REQUIRED NUMBER OF 3/4" [19mm] DIA. x 5" [127mm] HEADED SHEAR STUDS AT EACH BEAM. SEE DETAIL S3.2-3.
 - F. SEE DETAIL S3.2-13 FOR STEEL DECK SUPPORT AT COLUMN.
 - G. SEE DETAIL S3.2-14 FOR ADDITIONAL SLAB REQUIREMENT OVER BEAM GIRDERS.
 - H. SEE DETAIL S3.3-15 FOR FLOOR FRAMING OPENINGS.
 - I. RE: S3.2-1&5 AND S3.3-1&11 FOR TYPICAL STUD WALL FRAMING DETAILS.
 - J. TYPICAL EXTERIOR METAL STUD WALL FRAMING SHALL BE 600S200-54 SPACED AT 16" [406 mm] O.C. MAX.
 - K. ATTACH EXTERIOR STUD WALL FRAMING BOTTOM TRACK TO CONCRETE SLAB OR WALL, UNLESS SPECIFICALLY DETAILED OTHERWISE, WITH 3/8" [10 mm] DIA. X 2 5/16" [59 mm] EMBEDDED HILTI KWIK BOLT TZ ANCHORS SPACED AT 32" [813mm] O.C. MAX. SEE SHEET S0.1 AND DETAIL S3.3-13 FOR OTHER REQUIREMENTS.
 - L. TYPICAL INTERIOR METAL STUD WALL FRAMING ALONG NEW EXPANSION BUILDING PERIMETERS, U.N.O., SHALL BE 358S200-54 AT 24" O.C. MAX. CW/ ARCH. FOR ALL OTHER INTERIOR NON-BEARING PARTITION WALL SIZES AND LOCATIONS.
 - M. ATTACH INTERIOR STUD WALL FRAMING BOTTOM TRACK TO CONCRETE SLAB OR WALL WITH 0.157" [4 mm] DIA. X 1 1/4" [32 mm] EMBEDDED HILTI X-U POWDER DRIVEN FASTENERS SPACED AT 24" [610 mm] O.C. MAX. SEE SHEET S0-2 FOR OTHER REQUIREMENTS.

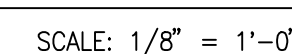
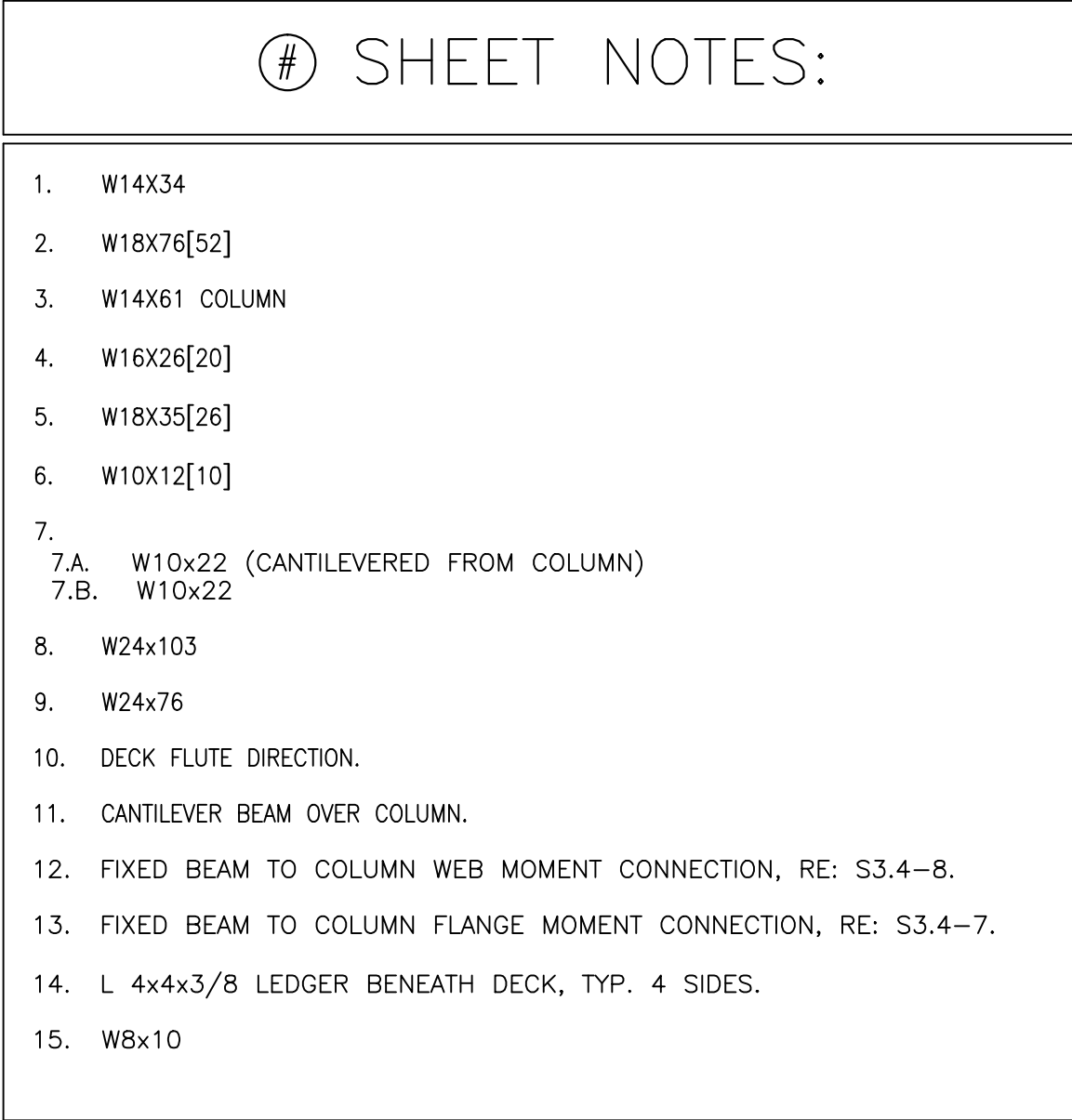
- # SHEET NOTES:**
- 1. W14X34
 - 2. W18X76[52]
 - 3. W14X61 COLUMN
 - 4. W16X26[20]
 - 5. W18X35[26]
 - 6. W10X12[10]
 - 7. W10X22
 - 8. W24X103
 - 9. W24X76
 - 10. DECK FLUTE DIRECTION
 - 11. CANTILEVER BEAM OVER COLUMN.
 - 12. L4x4x3/8 LEDGER TYP. 4 SIDES.
 - 13. W8x10
 - 14. W10x12




TRUE PLAN
1 FIRST FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"



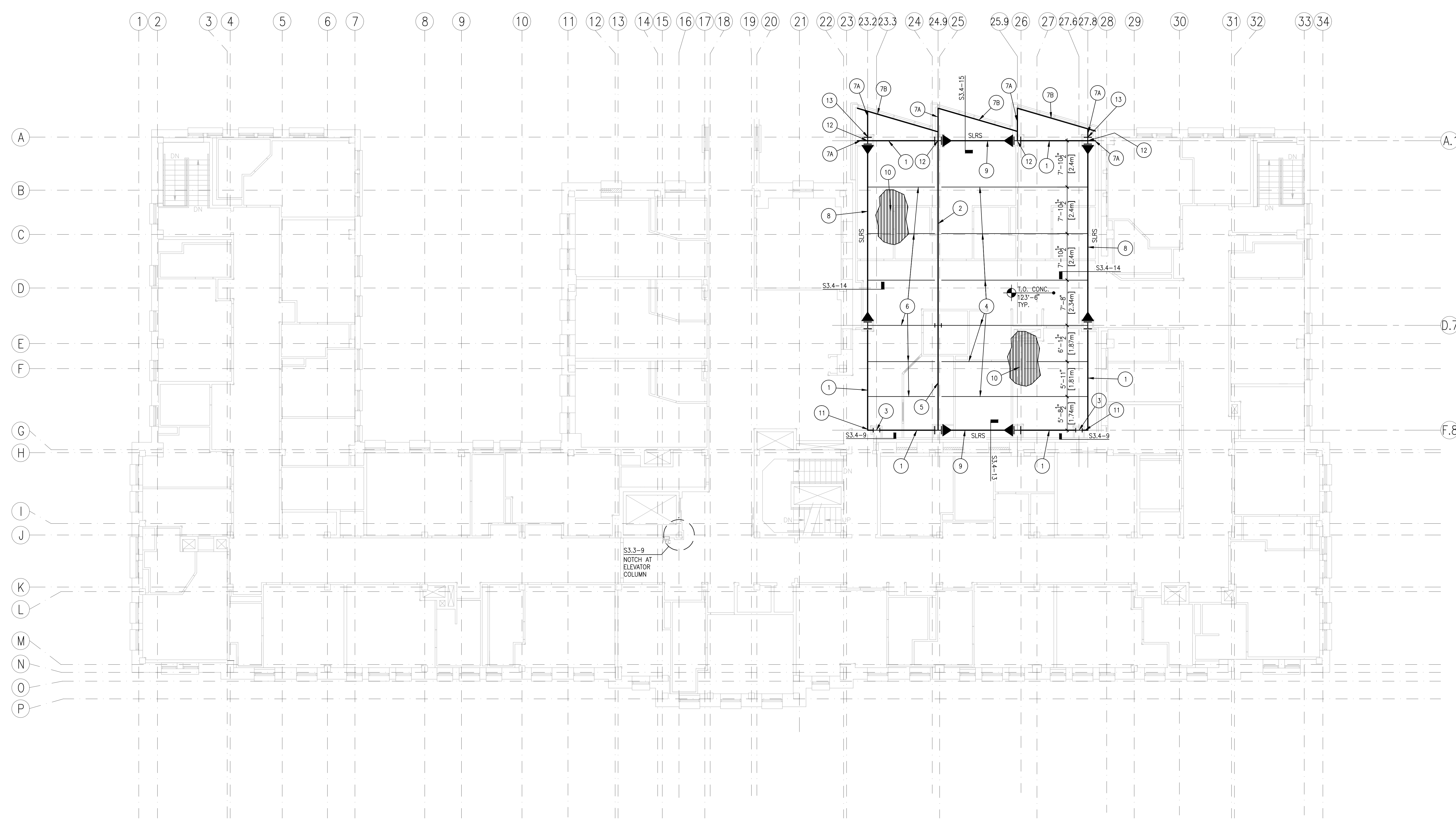
2
GRADE BEAM AT LOCK-UP ROOM AT COLUMN
SCALE: 1" = 1'-0"

REVISIONS	DATE	CSHQ	C.W. MOORE PLAZA 250 S. 5TH ST. BOISE, IDAHO 83702 (208) 343-4635 FAX (208) 343-1858 http://www.cshqa.com	GERALD G. GUNNY, P.E. C.W. MOORE PLAZA 250 S. 5TH ST. BOISE, IDAHO PHONE: 208-343-4635 FAX: 208-343-1858 <small>THESE DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT / ENGINEER. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE USED BY ANY PERSON OR ENTITY ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT, OR COMPLETION OF THIS PROJECT WHEN FINISHED WITHOUT THE WRITTEN CONSENT OF CSHQA OR ITS AFFILIATES. Copyright © 2013</small>	STAMP 	CAD FILE NAME: 531-320_S2.2.dwg XREF FILE NAME: 531-320_30X42TLBK.dwg 531-320_67a1.dwg 531-320_67GRID.dwg	DRAWING TITLE FIRST FLOOR FRAMING PLAN	PROJECT TITLE BOISE VAMC BUILDING 67 EXPANSION	DATE 07/12/2013	
									PROJECT NO. 531-320	
APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE		BUILDING NUMBER 67	CHECKED GG	DRAWN EP	DRAWING NO. S2.2	APPROVED: MEDICAL CENTER DIRECTOR		LOCATION VAMC BOISE, IDAHO	DWG 56 OF 190	DEPARTMENT OF VETERANS AFFAIRS



			C.W. MOORE PLAZA 250 S. 5TH ST. BOISE, ID 83702 (208) 343-4635 FAX (208) 343-1858 http://www.cshqa.com		CAD FILE NAME: 531-320_S2.3.dwg XREF FILE NAME: 531-320_30X42TLBK.dwg 531-320_67o2.dwg 531-320_67GRID.dwg 531-320_S2.1.dwg	DRAWING TITLE SECOND FLOOR FRAMING PLAN	PROJECT TITLE BOISE VAMC BUILDING 67 EXPANSION	DATE 07/12/2013		
REVISIONS	DATE							PROJECT NO. 531-320		DRAWING NO. S2.3
						APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE	BUILDING NUMBER 67	CHECKED GG	DRAWN EP	DEPARTMENT OF VETERANS AFFAIRS
						APPROVED: MEDICAL CENTER DIRECTOR	LOCATION VAMC BOISE, IDAHO			

ONE EIGHTH INCH = ONE FOOT
ONE QUARTER INCH = ONE FOOT
THREE EIGHTHS INCH = ONE FOOT
ONE HALF INCH = ONE FOOT
ONE INCH = ONE FOOT
ONE AND ONE HALF INCHES = ONE FOOT
THREE INCHES = ONE FOOT



- GENERAL NOTES:
- A. ELEVATED CONC. DECKS:
 - 3" [76mm] DEEP W3 FORMLOK DECK, 20GA. BY VERCO, W/ 3" [76mm] NORMAL WEIGHT CONC. TOPPING (6" [152mm] TOTAL THICKNESS)
 - REINF. W/ 6X6 W1.4XW1.4 WWF HELD 1" [25mm] FROM TOP OF CONC.
 - TYPICAL STEEL DECK ATTACHMENTS TO FRAMING SHALL BE: SUPPORTS PERPEND. TO DECK SPAN - (4) 5/8" DIA. PUDDLE WELDS PER SHEET
 - SUPPORTS PARALLEL TO DECK SPAN - 5/8" DIA. PUDDLE WELDS AT 6" [152mm] O.C.
 - SIDE LAP CONNECTIONS - BUTT JUNCTIONS AT 24" [610mm] O.C.
 - DECK SHALL BE CONT. OVER (3) SPANS, MIN.
 - B. FRAMING CONNECTIONS:
 - MOMENT FRAME CONNECTION, SEE DETAIL S3.4-4.
 - SLRS - SEISMIC LOAD RESISTING SYSTEM, SEE STRUCTURAL STEEL NOTES ON SHEET S0.1
 - STANDARD FRAME CONNECTION U.N.O., SEE DETAIL S3.2-12.
 - C. RE: S3.2-7 TYPICAL BEAM-BEAM CONNECTION.
 - D. RE: S3.2-6 TYPICAL BEAM/GIRDER TO COL. CONNECTION.
 - E. [#] DENOTES REQUIRED NUMBER OF 3/4" [19mm] DIA. x 5" [127mm] HEADED SHEAR STUDS AT EACH BEAM. SEE DETAIL S3.2-3.
 - F. SEE DETAIL S3.2-13 FOR STEEL DECK SUPPORT AT COLUMN.
 - G. RE: S3.3-3 FOR MOMENT FRAME COLUMN SPLICE AND S3.3-7 FOR NON-MOMENT FRAME COLUMN SPLICE.
 - H. SEE DETAIL S3.2-14 FOR ADDITIONAL SLAB REQUIREMENT OVER BEAM GIRDERS.
 - I. SEE DETAIL S3.3-15 FOR FLOOR FRAMING OPENINGS.
 - J. RE: S3.2-1&2&4&5 AND S3.3-1&11 FOR TYPICAL STUD WALL FRAMING DETAILS.
 - K. TYPICAL EXTERIOR METAL STUD WALL FRAMING SHALL BE 600S200-54 SPACED AT 16" [406 mm] O.C. MAX.
 - L. ATTACH EXTERIOR STUD WALL FRAMING BOTTOM TRACK TO CONCRETE SLAB OR WALL, UNLESS SPECIFICALLY DETAILED OTHERWISE, WITH 3/8" [10 mm] DIA. x 2 5/16" [59 mm] EMBEDDED HILTI KWIK BOLT TZ ANCHORS SPACED AT 32" [813mm] O.C. MAX. SEE SHEET S0.1 AND DETAIL S3.3-13 FOR OTHER REQUIREMENTS.
 - M. TYPICAL INTERIOR METAL STUD WALL FRAMING ALONG NEW EXPANSION BUILDING PERIMETERS, U.N.O., SHALL BE 358S200-54 AT 24" O.C. MAX. CW/ ARCH. FOR ALL OTHER INTERIOR NON-BEARING PARTITION WALL SIZES AND LOCATIONS.
 - N. ATTACH INTERIOR STUD WALL FRAMING BOTTOM TRACK TO CONCRETE SLAB OR WALL WITH 0.157" [4 mm] DIA. x 1 1/4" [32 mm] EMBEDDED HILTI X-U POWDER DRIVEN FASTENERS SPACED AT 24" [610 mm] O.C. MAX. SEE SHEET S0-2 FOR OTHER REQUIREMENTS.

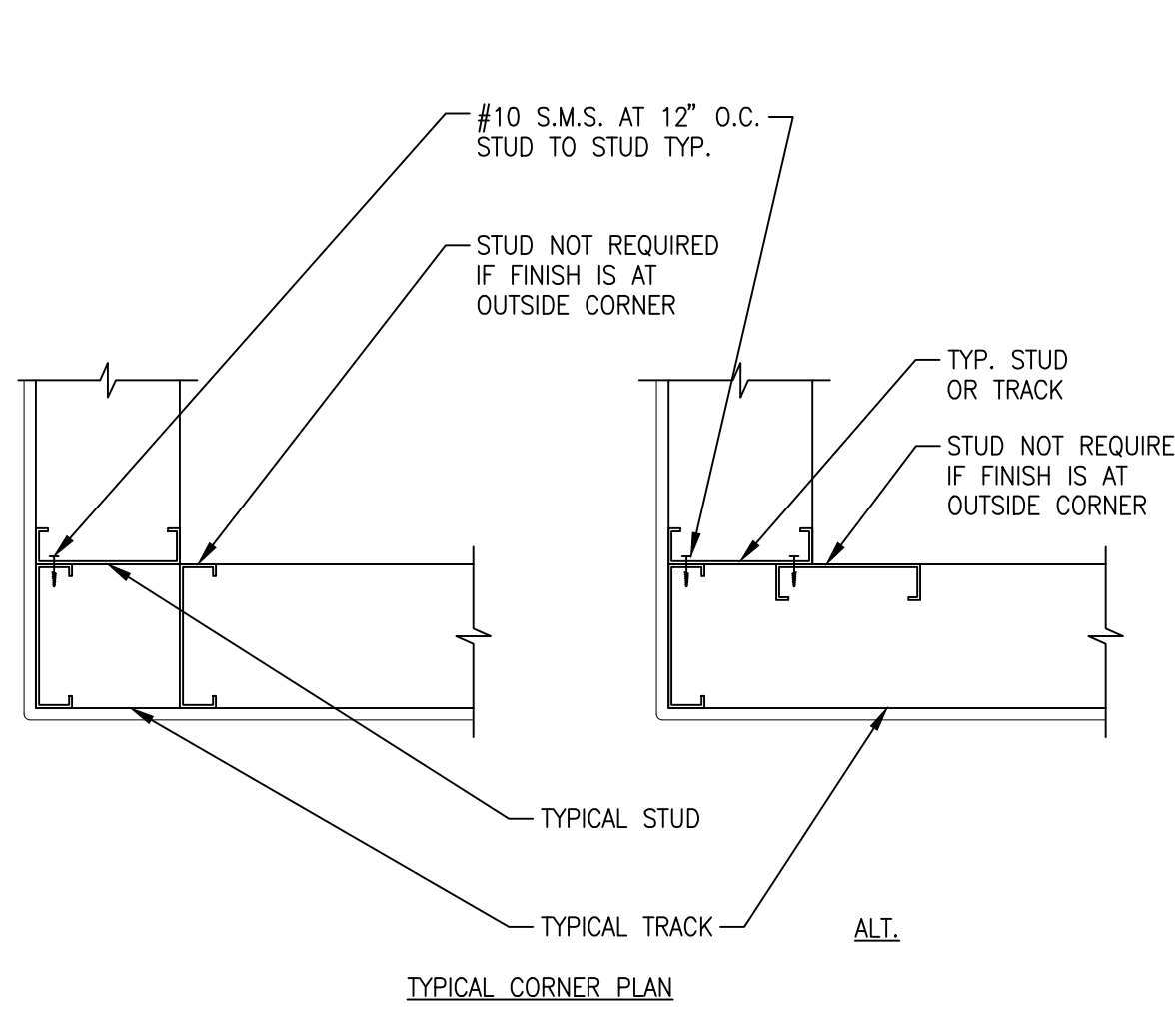
- # SHEET NOTES:
- 1. W14X34
 - 2. W18X76[52]
 - 3. W14X61 COLUMN
 - 4. W16X26[20]
 - 5. W18X35[26]
 - 6. W10X12[10]
 - 7. W10X22 (CANTILEVERED FROM COLUMN)
 - 7.B. W10X22
 - 8. W24X103
 - 9. W24X76
 - 10. DECK FLUTE DIRECTION.
 - 11. CANTILEVER BEAM OVER COLUMN.
 - 12. FIXED BEAM TO COLUMN WEB MOMENT CONNECTION, RE: S3.4-8.
 - 13. FIXED BEAM TO COLUMN FLANGE MOMENT CONNECTION, RE: S3.4-7.

TRUE PLAN
1 THIRD FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

REVISIONS	DATE	CSHQ	C.W. MOORE PLAZA 250 S. 5TH ST. BOISE, ID 83702 (208) 343-4635 FAX (208) 343-1858 http://www.cshqa.com	GERALD G. GUNNY, P.E. C.W. MOORE PLAZA 250 S. 5TH ST. BOISE, IDAHO PHONE: 208-343-4635 FAX: 208-343-1858 THESE DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT / ENGINEER. NO PART OF THIS PROJECT OR ANY PART THEREOF SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF CSHQA OR ITS AFFILIATES. Copyright © 2013	STAMP PROFESSIONAL ENGINEER 14895 7/12/13 STATE OF IDAHO GERALD G. GUNNY	CAD FILE NAME: 531-320_S2.4.dwg XREF FILE NAME: 531-320_30X42TLBK.dwg 531-320_67a3.dwg 531-320_67GRID.dwg	DRAWING TITLE THIRD FLOOR FRAMING PLAN	PROJECT TITLE BOISE VAMC BUILDING 67 EXPANSION	DATE 07/12/2013	PROJECT NO. 531-320	DRAWING NO. S2.4	DWG 58 OF 190	DEPARTMENT OF VETERANS AFFAIRS
APPROVED: MEDICAL CENTER DIRECTOR													



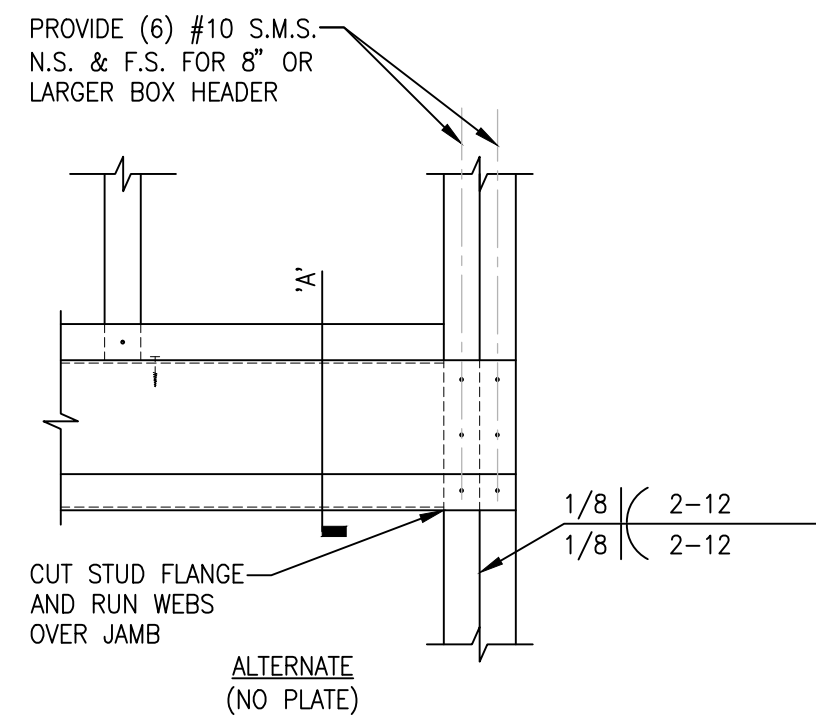
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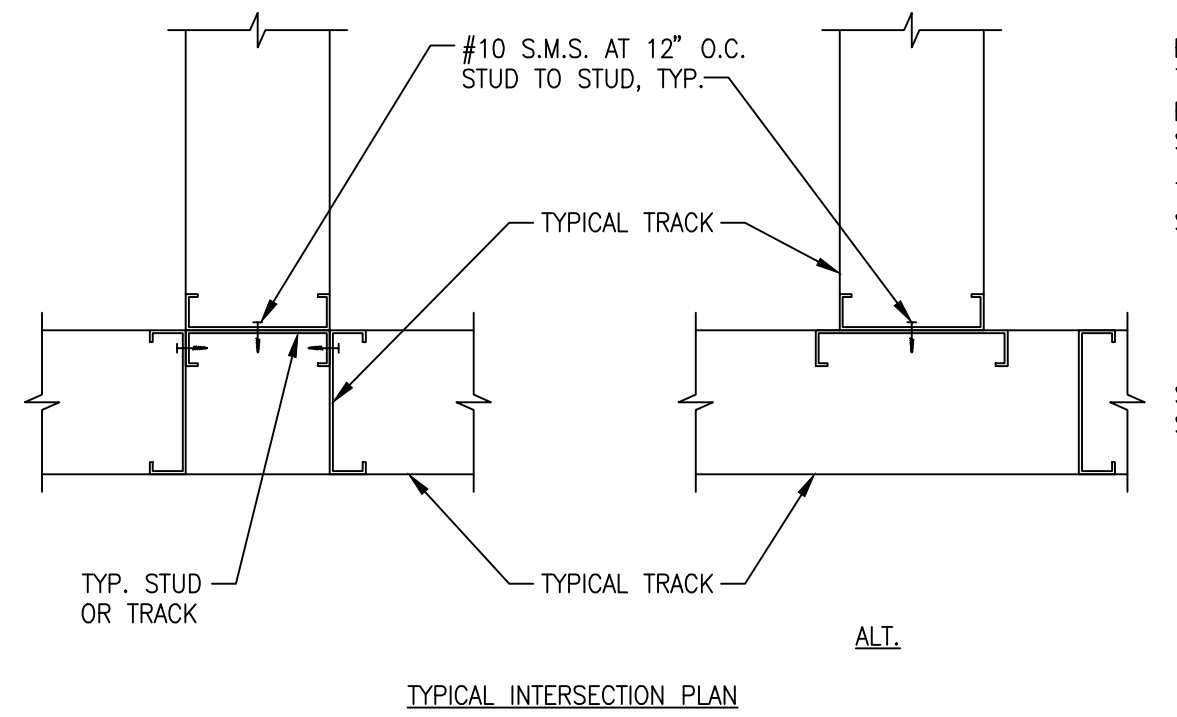
1 TYP. STUD FRAMING DETAIL
SCALE: 1 1/2" = 1'-0"

STUD HEADER SCHEDULE			
SIZE OF OPENING	BOX HEADER MEMBER	TRACK	JAMBS
14"	(2) 800S200-54	(3) 600T200-68	(3) 600S200-54
4" AND LESS	(2) 600S200-54	(2) 600T200-54	(2) 600S200-54

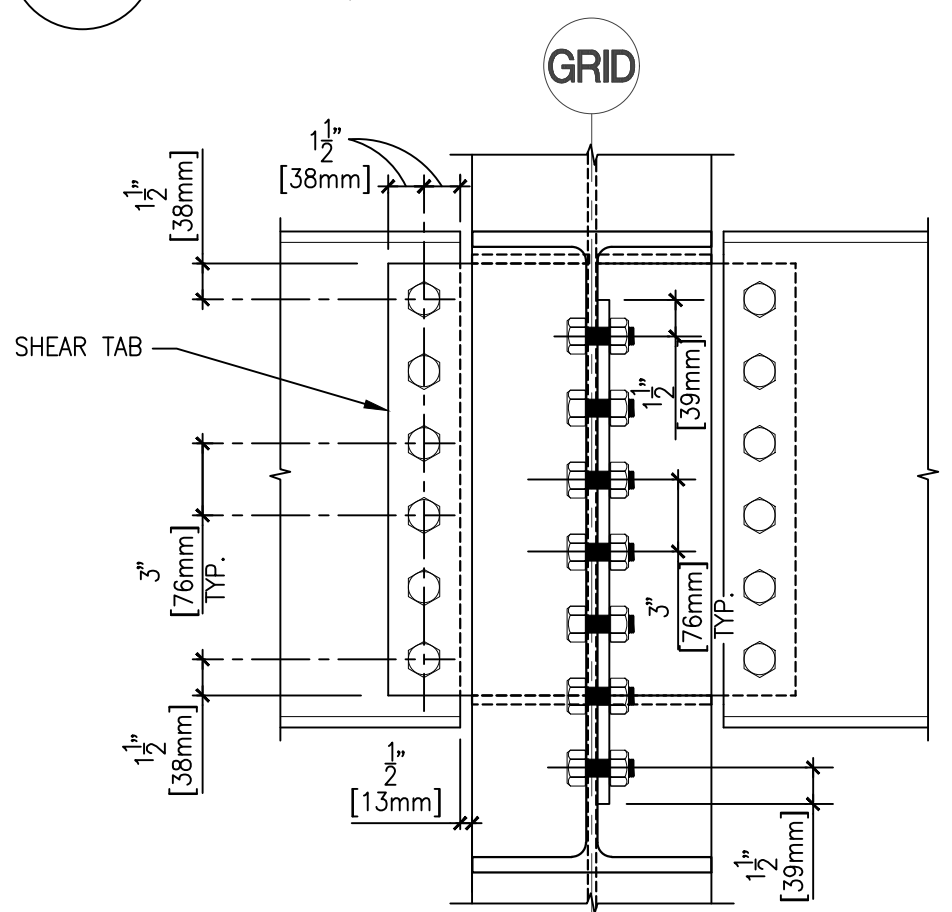
NOTE: WEB STIFFENERS REQUIRED EACH BOX HEADER W/ SPAN 10' AND GREATER. WEB STIFFENERS SHALL BE 600T25-54 MIN. LOCATED AT EACH SPAN END. INSTALL INSIDE FACE OF EACH HEADER STUD SECTION W/ (4) #10 S.M.S.



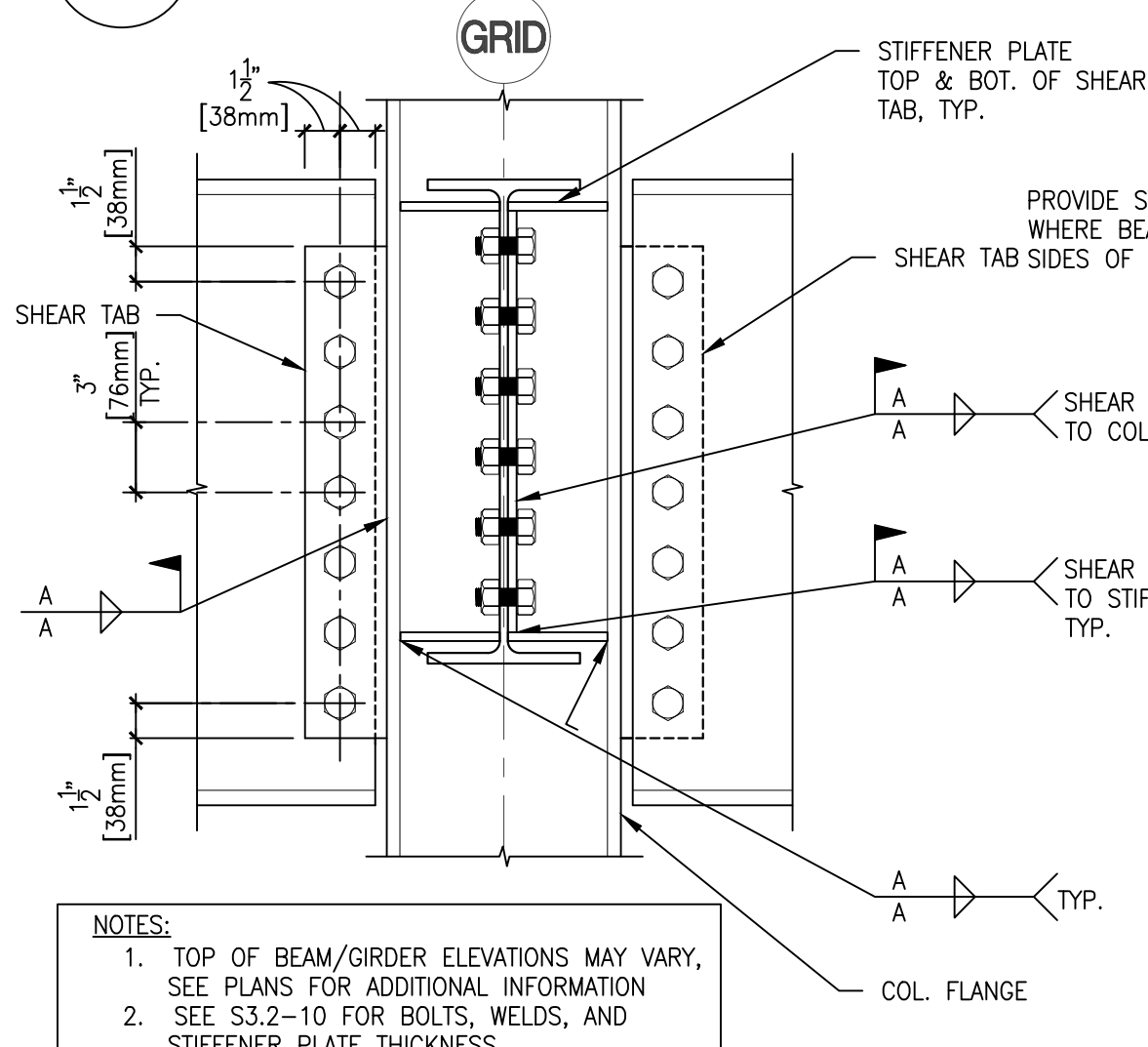
2 BOX HEADER DETAIL
SCALE: 1 1/2" = 1'-0"



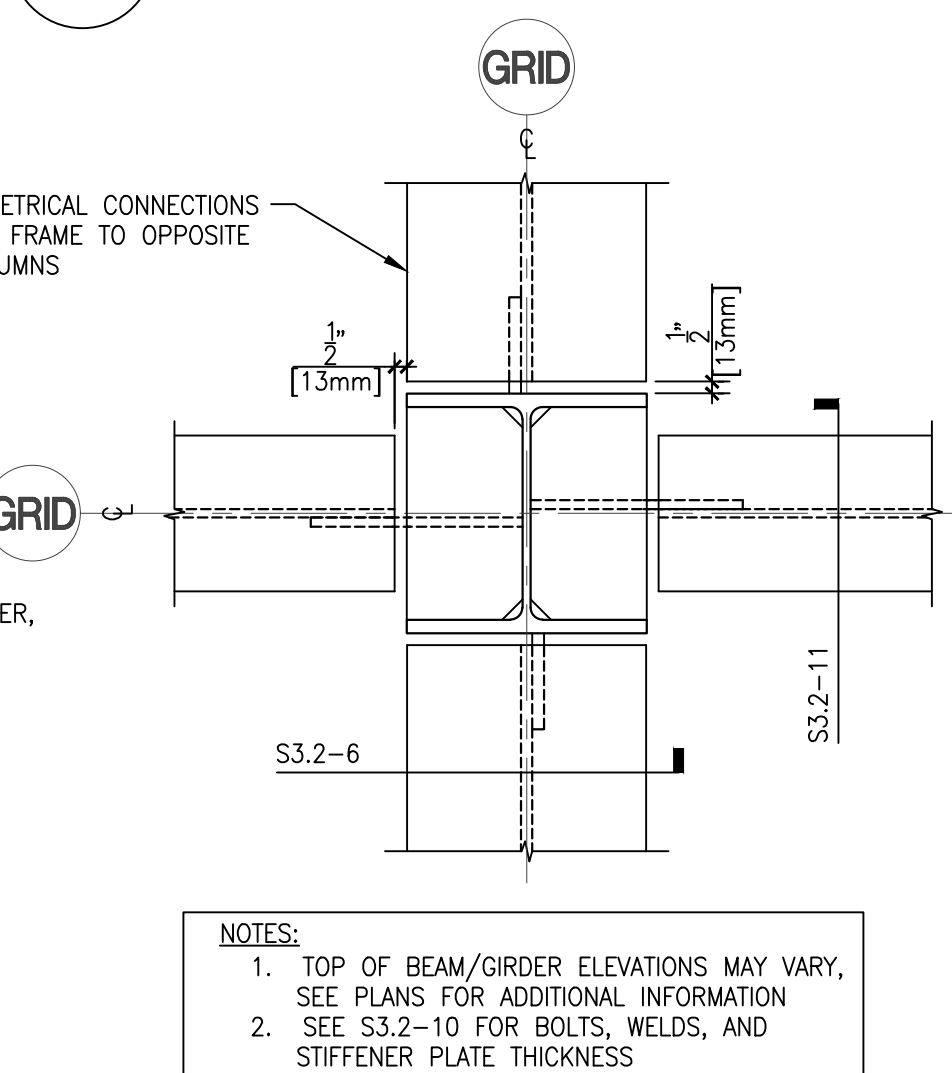
5 TYP. TRACK CLOSURE
SCALE: 3" = 1'-0"



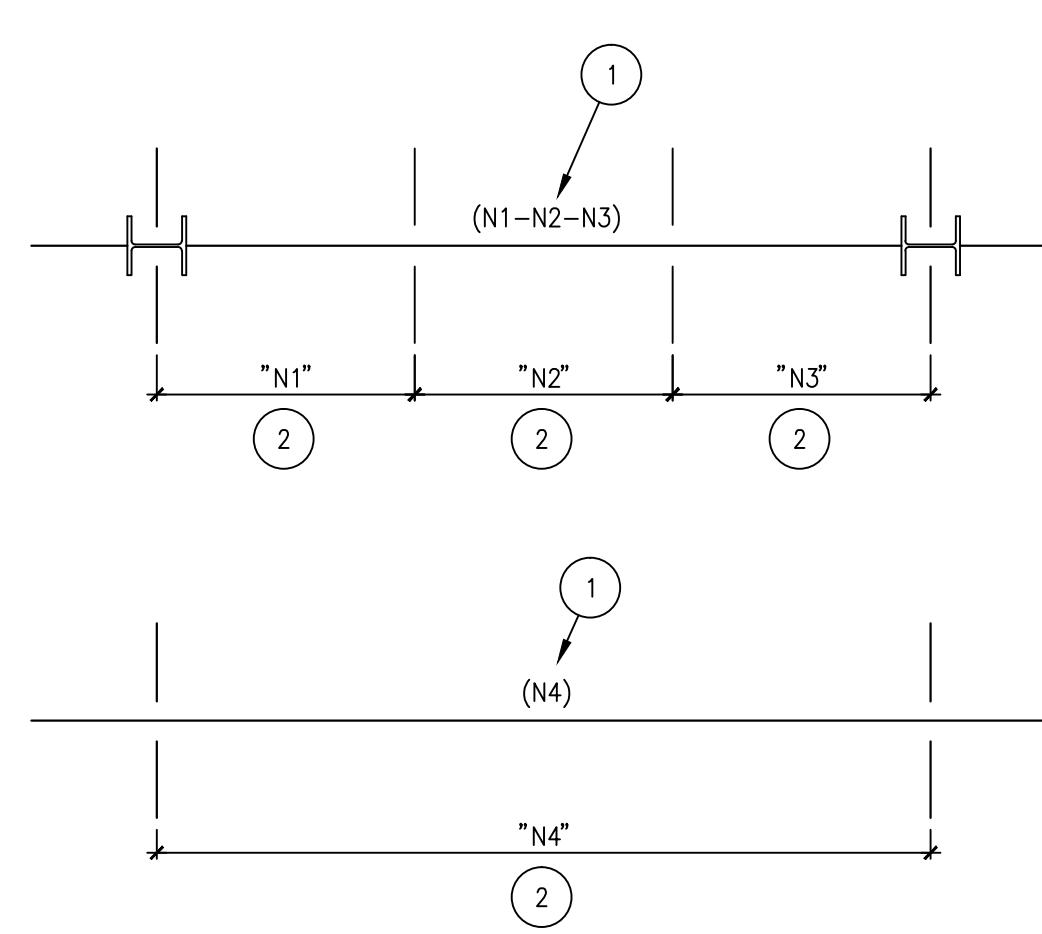
6 BEAM - COLUMN
SCALE: 1 1/2" = 1'-0"



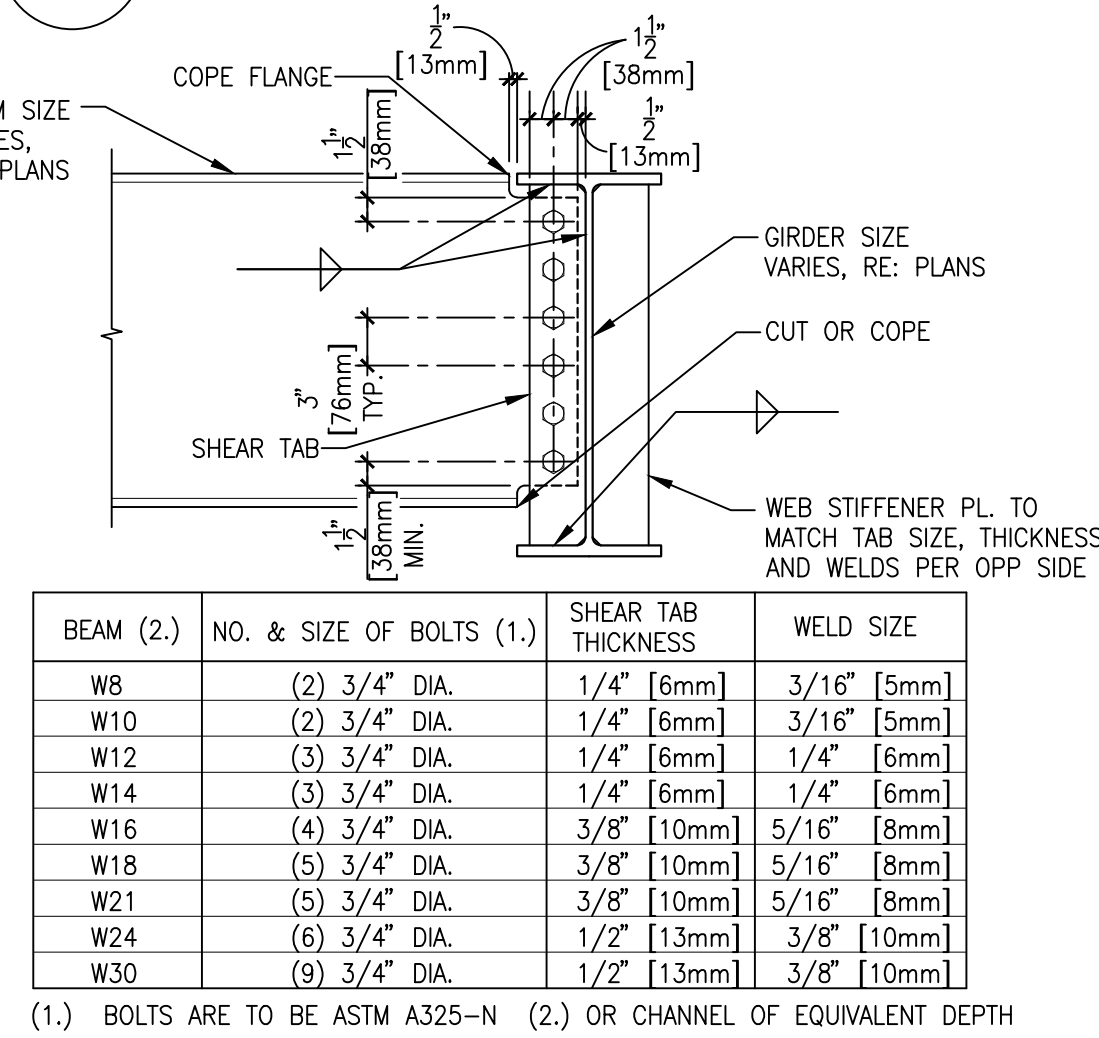
11 BEAM - COLUMN
SCALE: 1 1/2" = 1'-0"



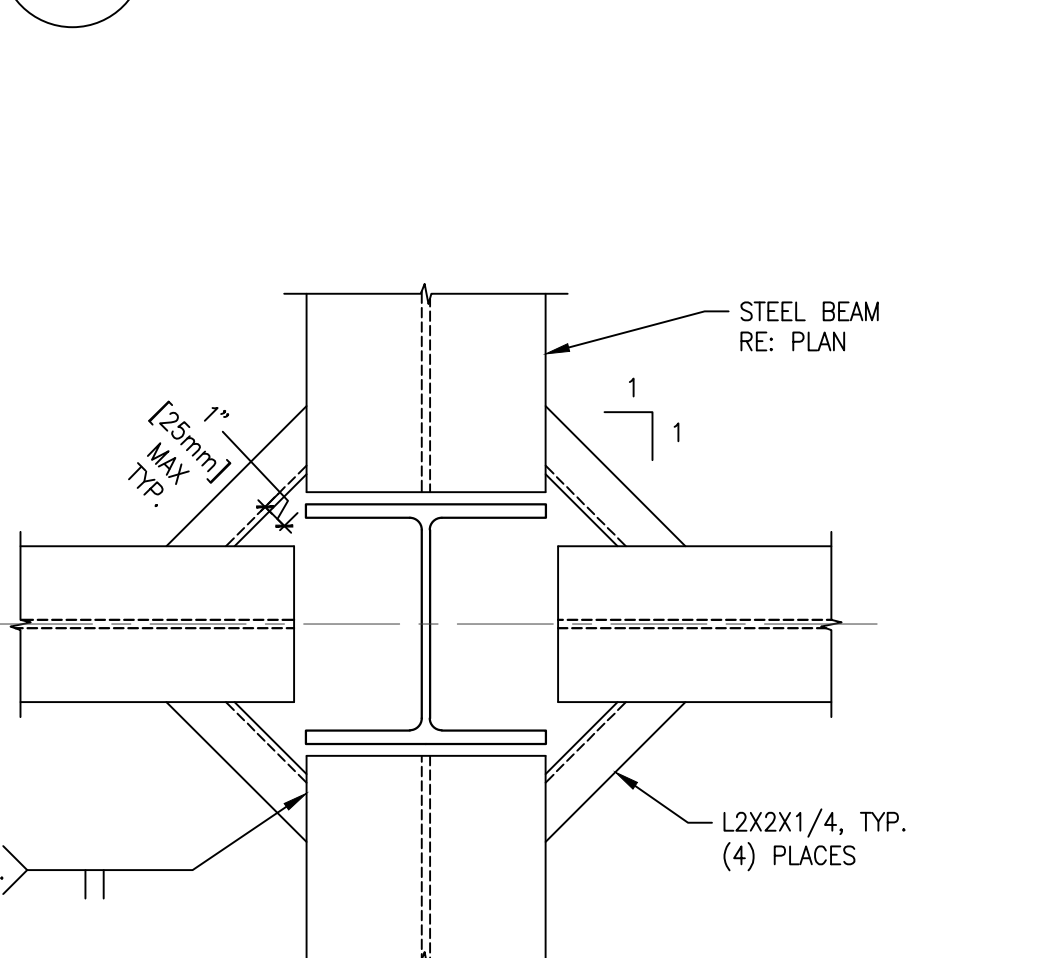
12 BEAM - COLUMN (PLAN)
SCALE: 1 1/2" = 1'-0"



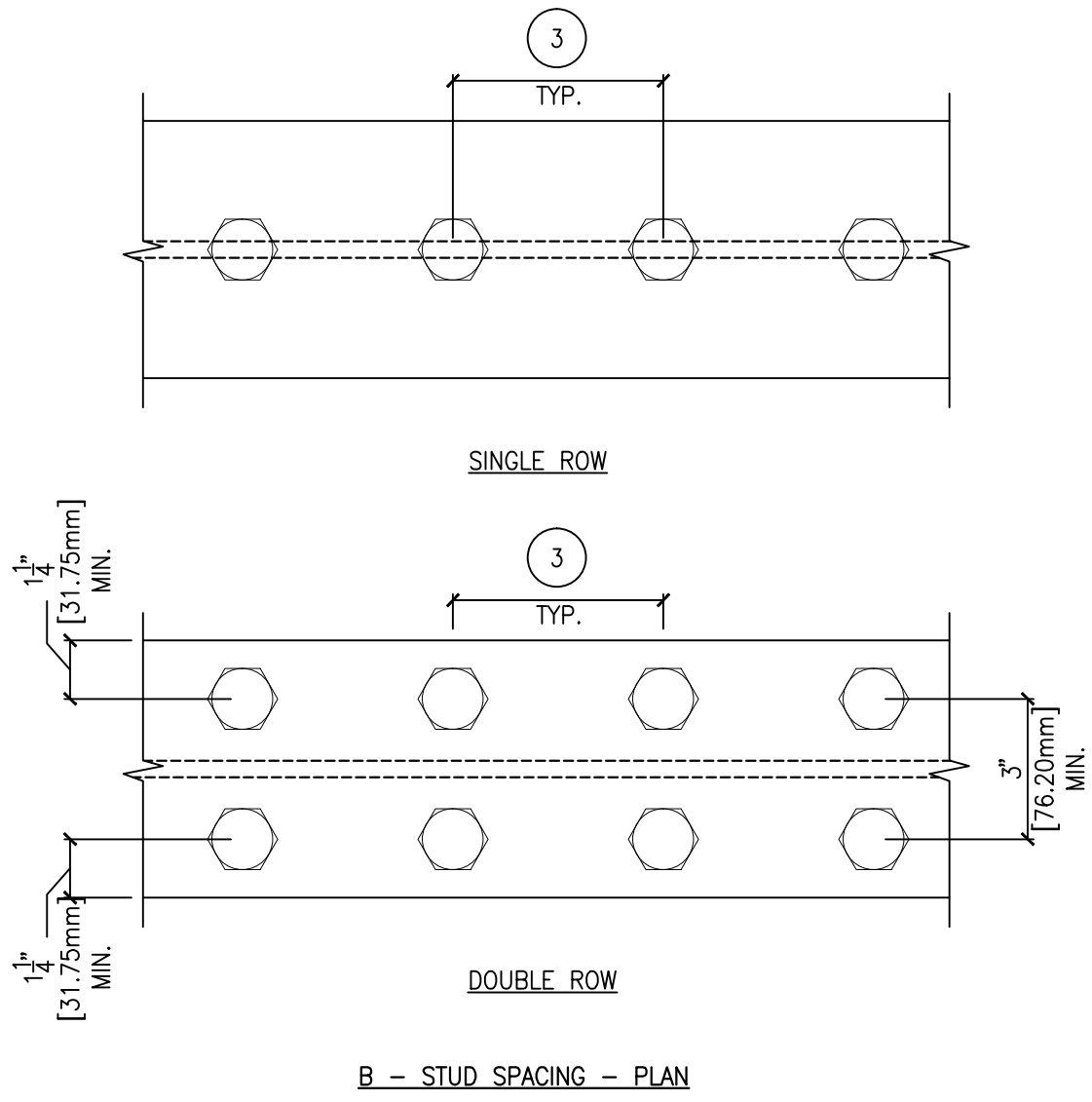
3 TYP. HEADED SHEAR STUD PLACEMENT
SCALE: NTS



7 TYP. BEAM - BEAM CONN.
SCALE: 1" = 1'-0" (USE FOR FLOOR BEAM)



13 STEEL DECK SUPPORT AT COLUMN - PLAN
SCALE: 1 1/2" = 1'-0"

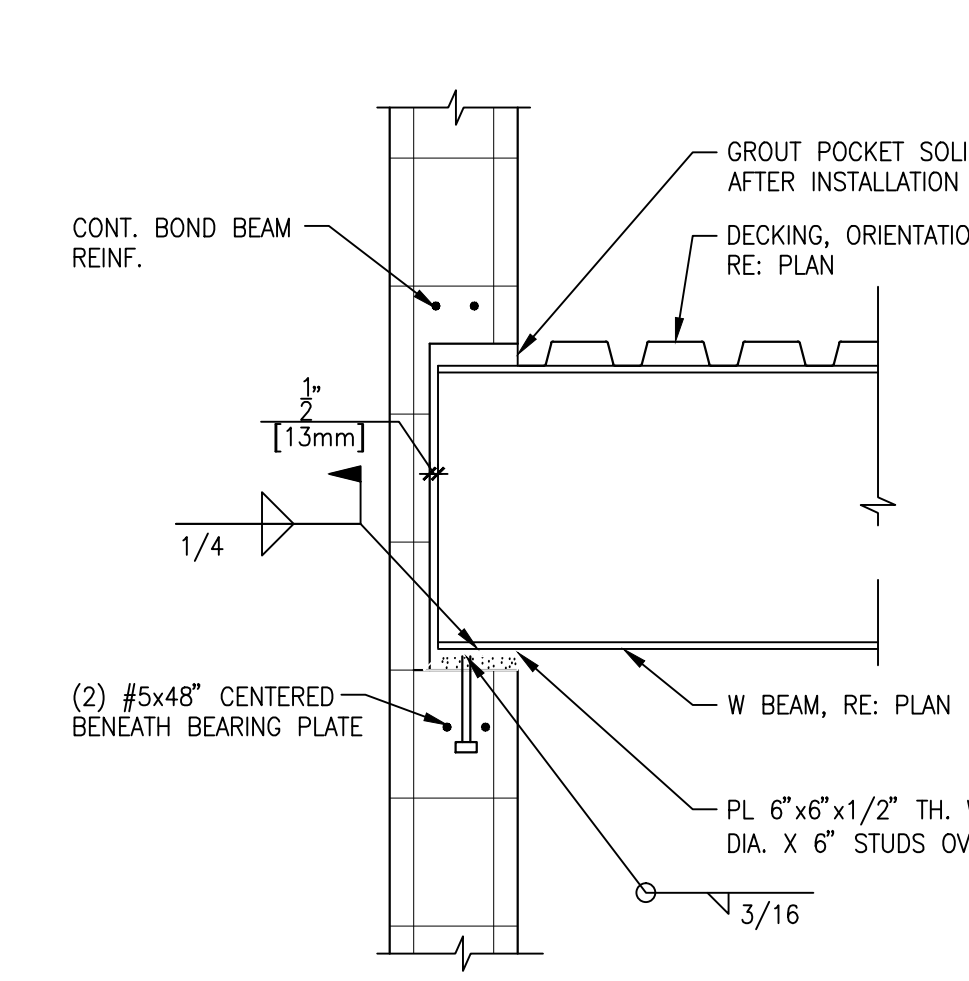


4 - STUD CALLOUTS AS SHOWN ON PLAN

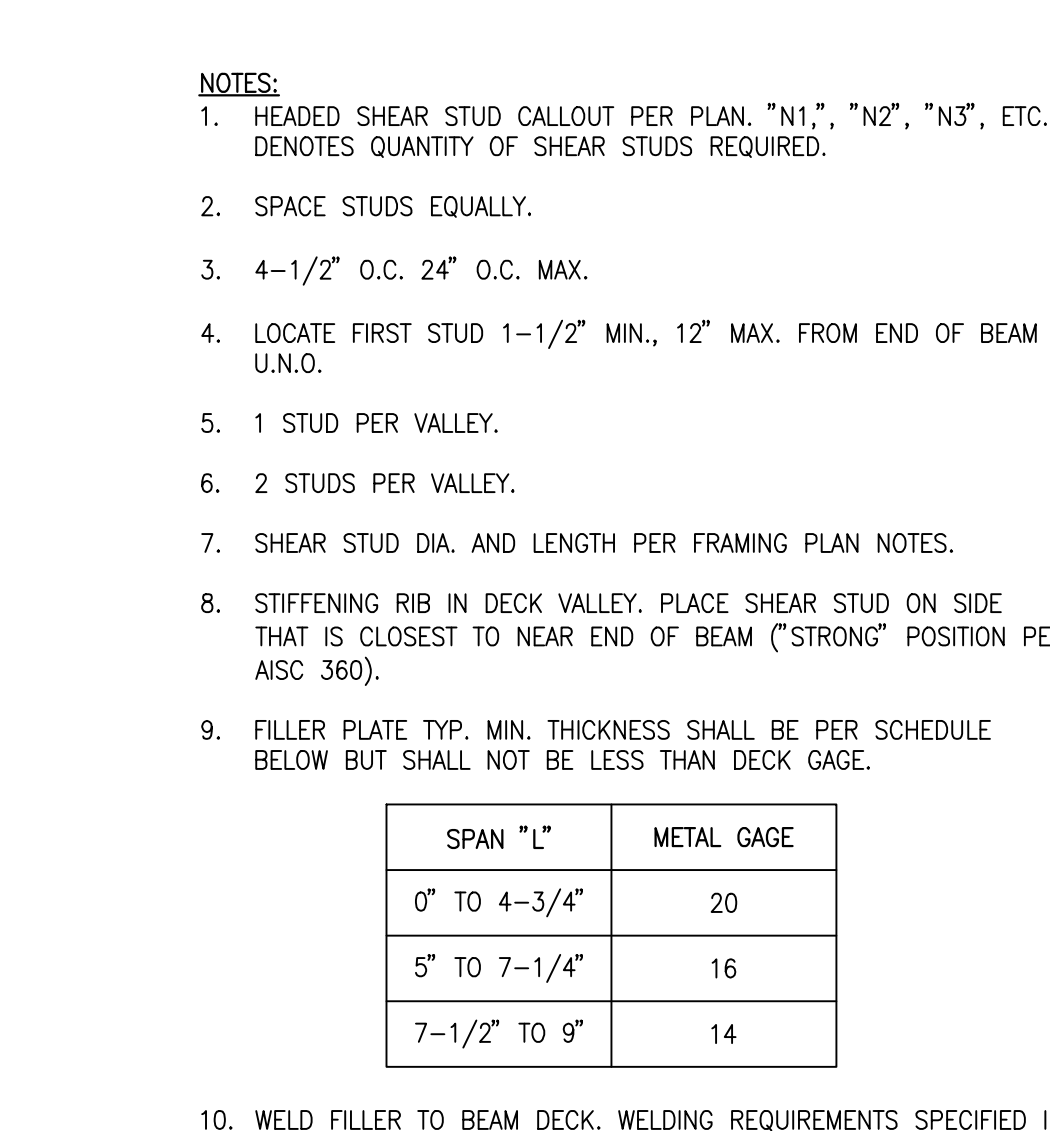
5 - STUD SPACING - PLAN

6 - DECK PERPENDICULAR TO BEAM

7 - DECK PARALLEL TO BEAM



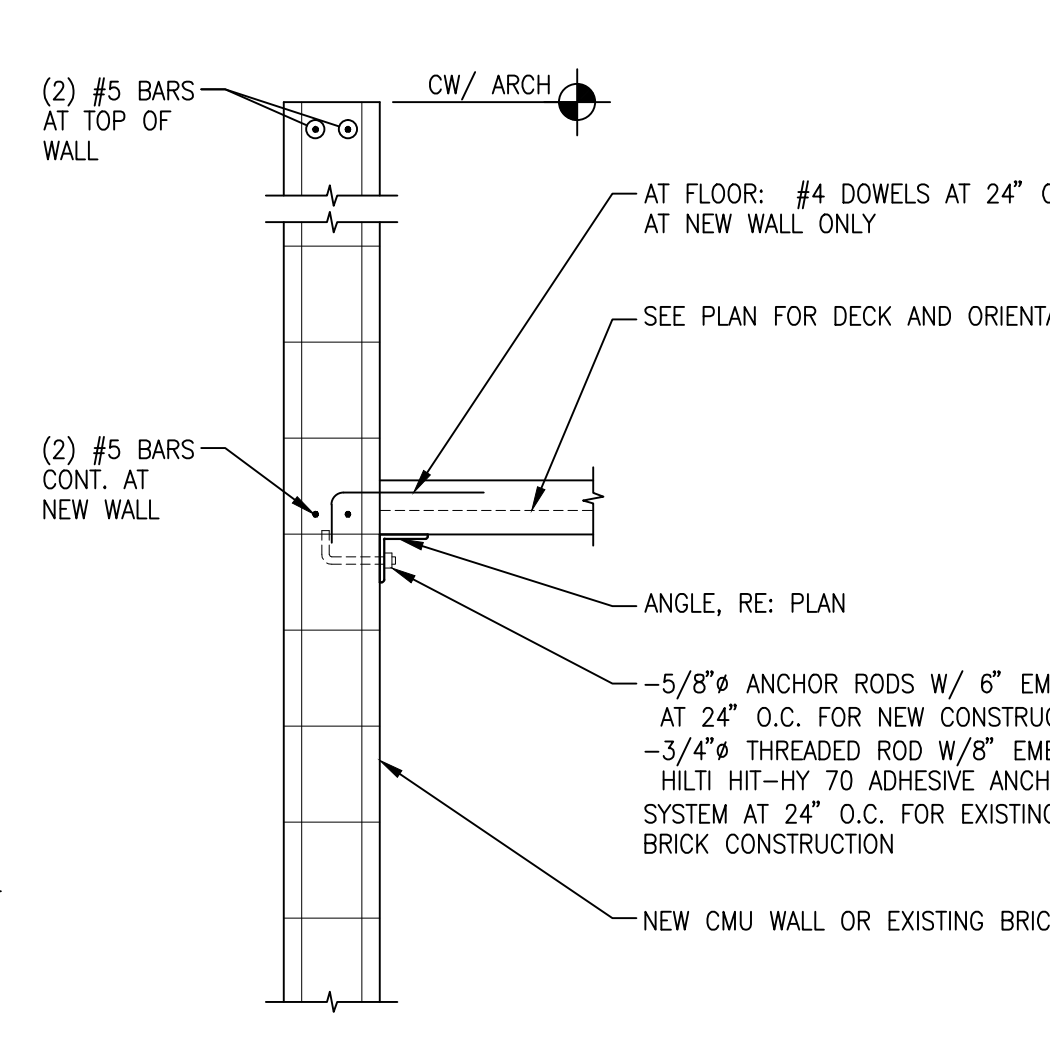
8 BEAM AT WALL
SCALE: 1" = 1'-0"



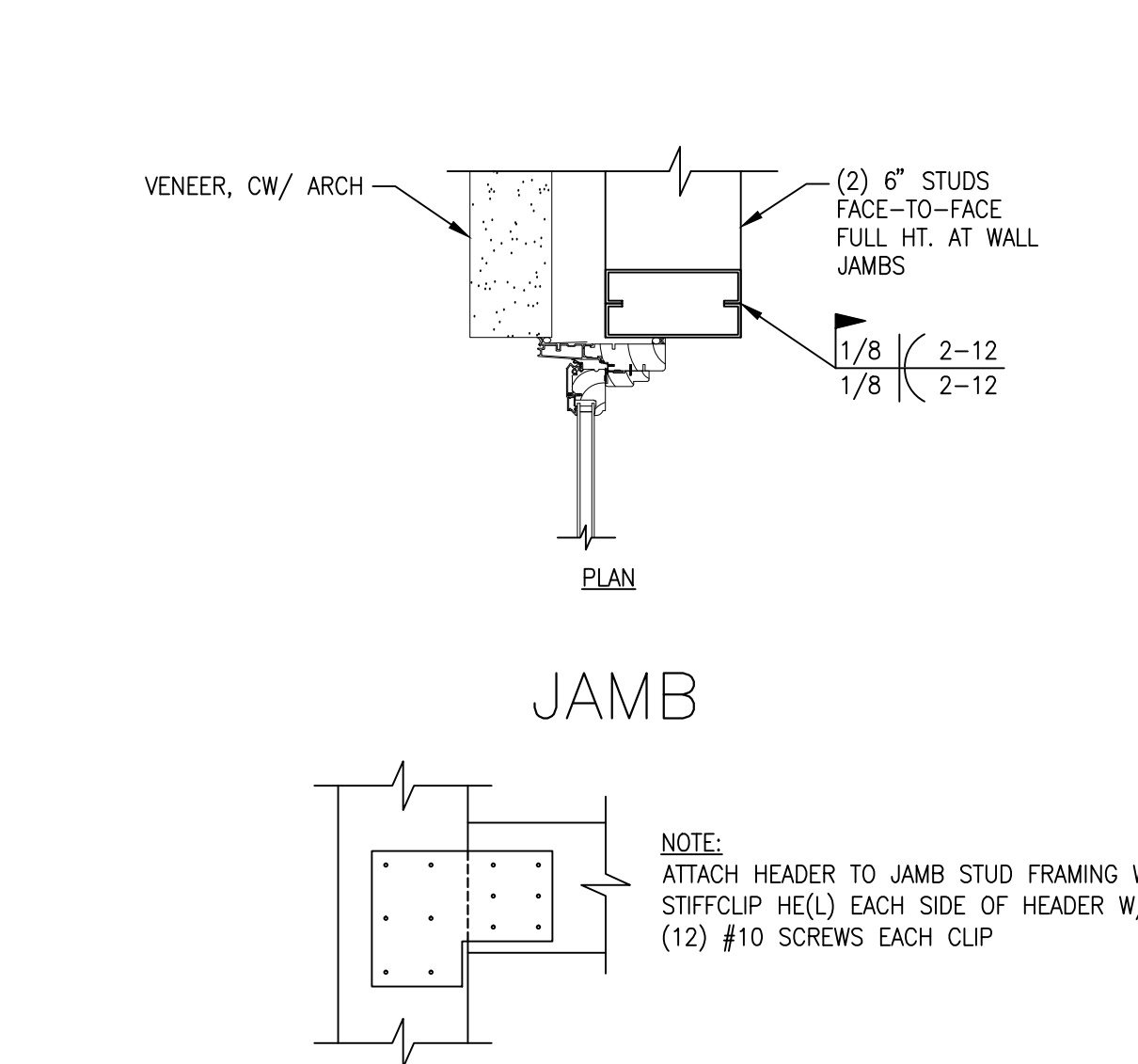
9 VALLEY OVER FLANGE

10 SPLIT

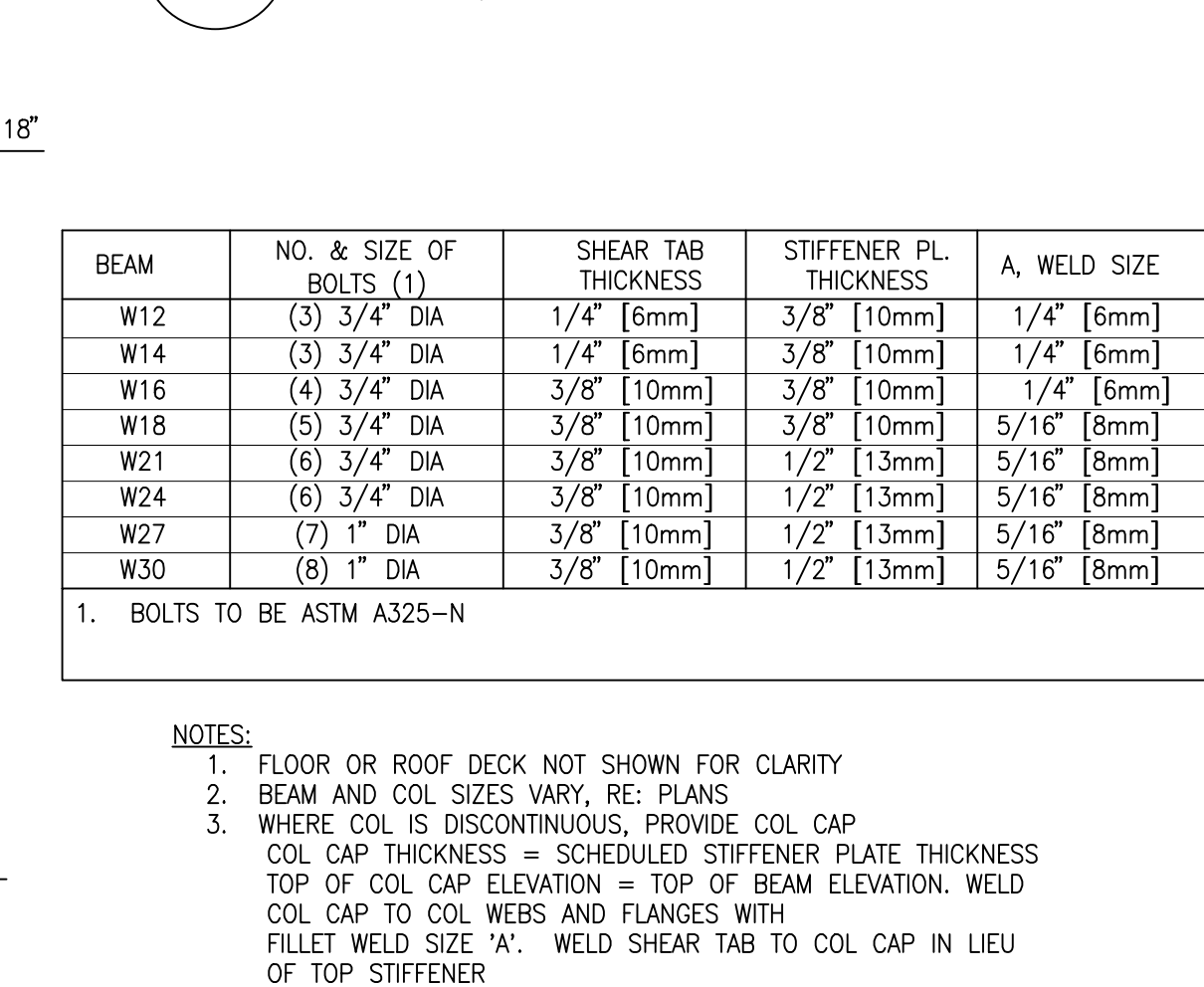
11 WITH FILLER PLATES



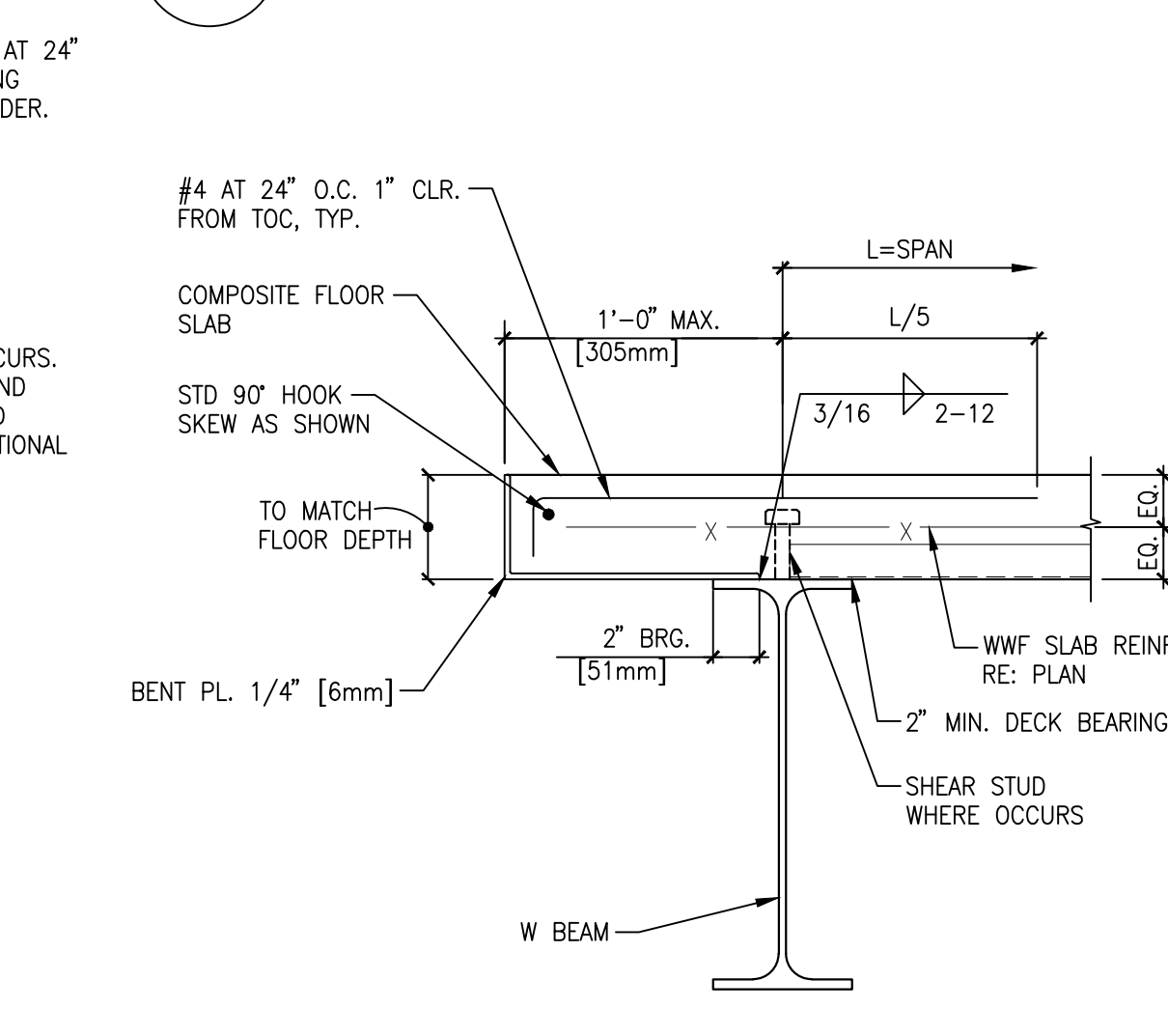
9 LEDGER AT WALL
SCALE: 3/4" = 1'-0"



4 FIXED WINDOW/DOOR HEAD
SCALE: 1 1/2" = 1'-0"



10 BEAM - COL CONN. INFO
SCALE: 1" = 1'-0"



15 EDGE OF DECK SLAB
SCALE: 1 1/2" = 1'-0"

14 REINF. AT GIRDERS
SCALE: 1 1/2" = 1'-0"

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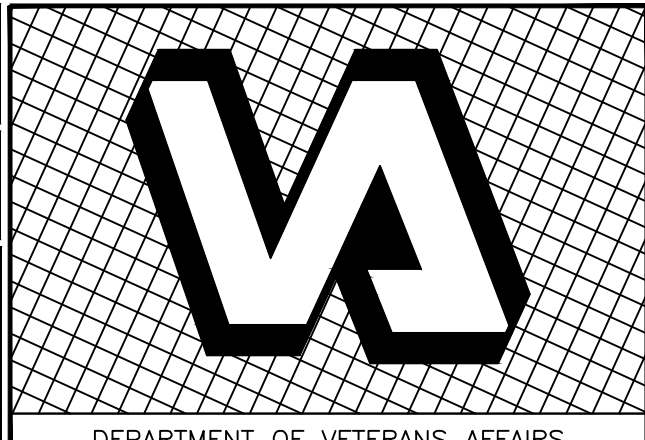
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STRUCTURAL DETAILS	
APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE	
APPROVED: MEDICAL CENTER DIRECTOR	

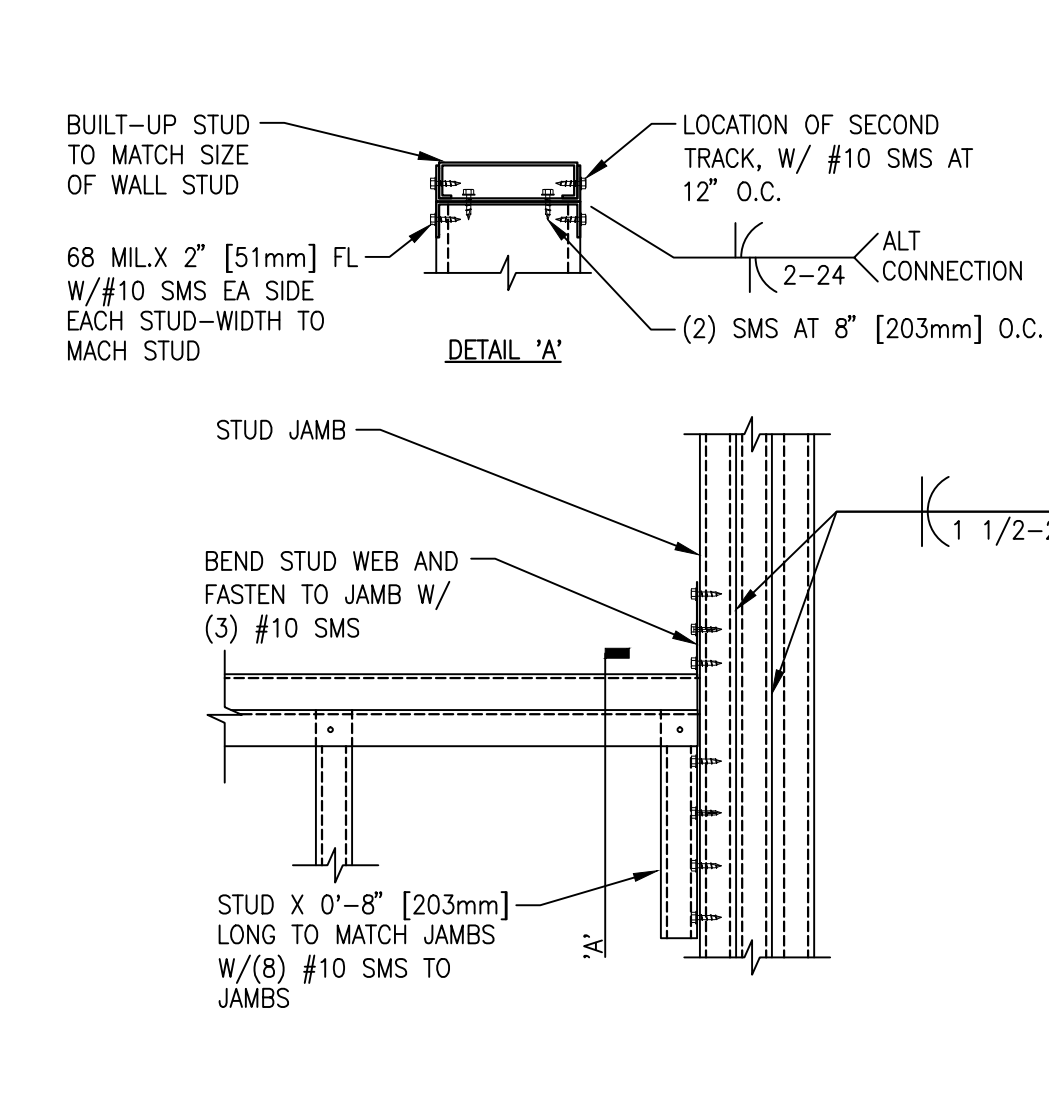
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PROJECT NO. 531-320		DRAWING NO. S3.2	
BUILDING NUMBER 67		CHECKED GG	DRAWN EP
LOCATION VAMC BOISE, IDAHO		DWG 61 OF 190	



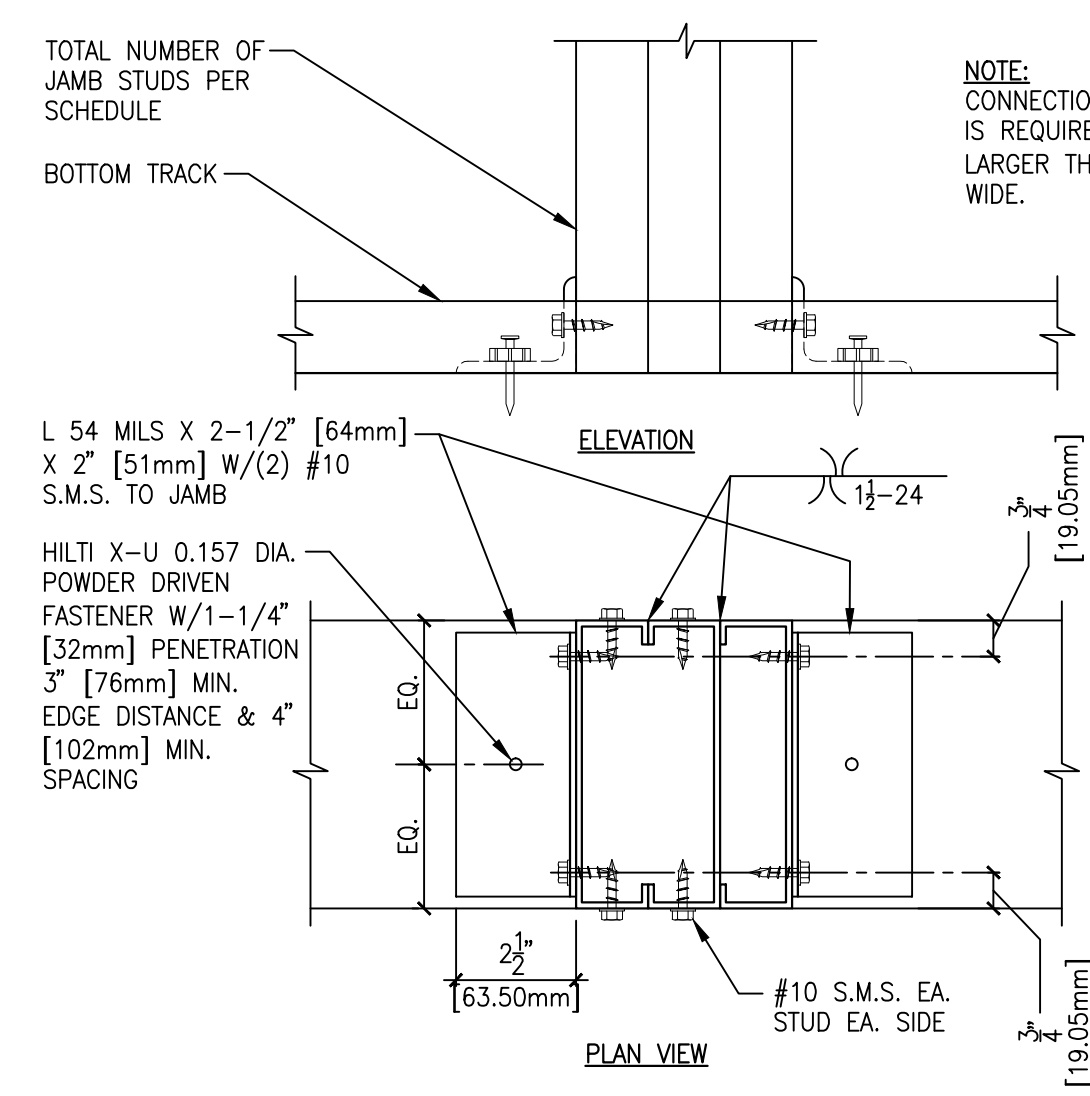
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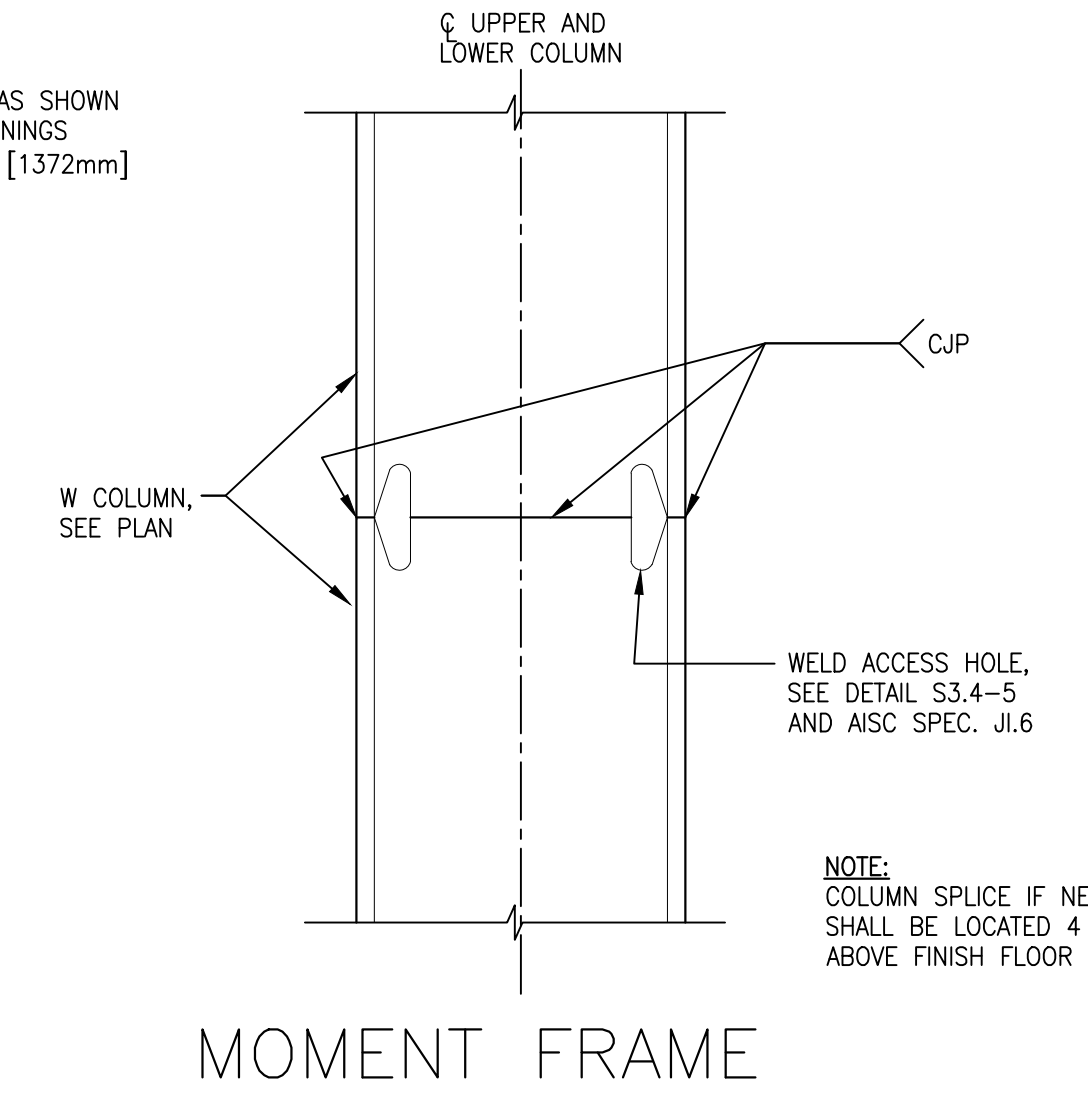
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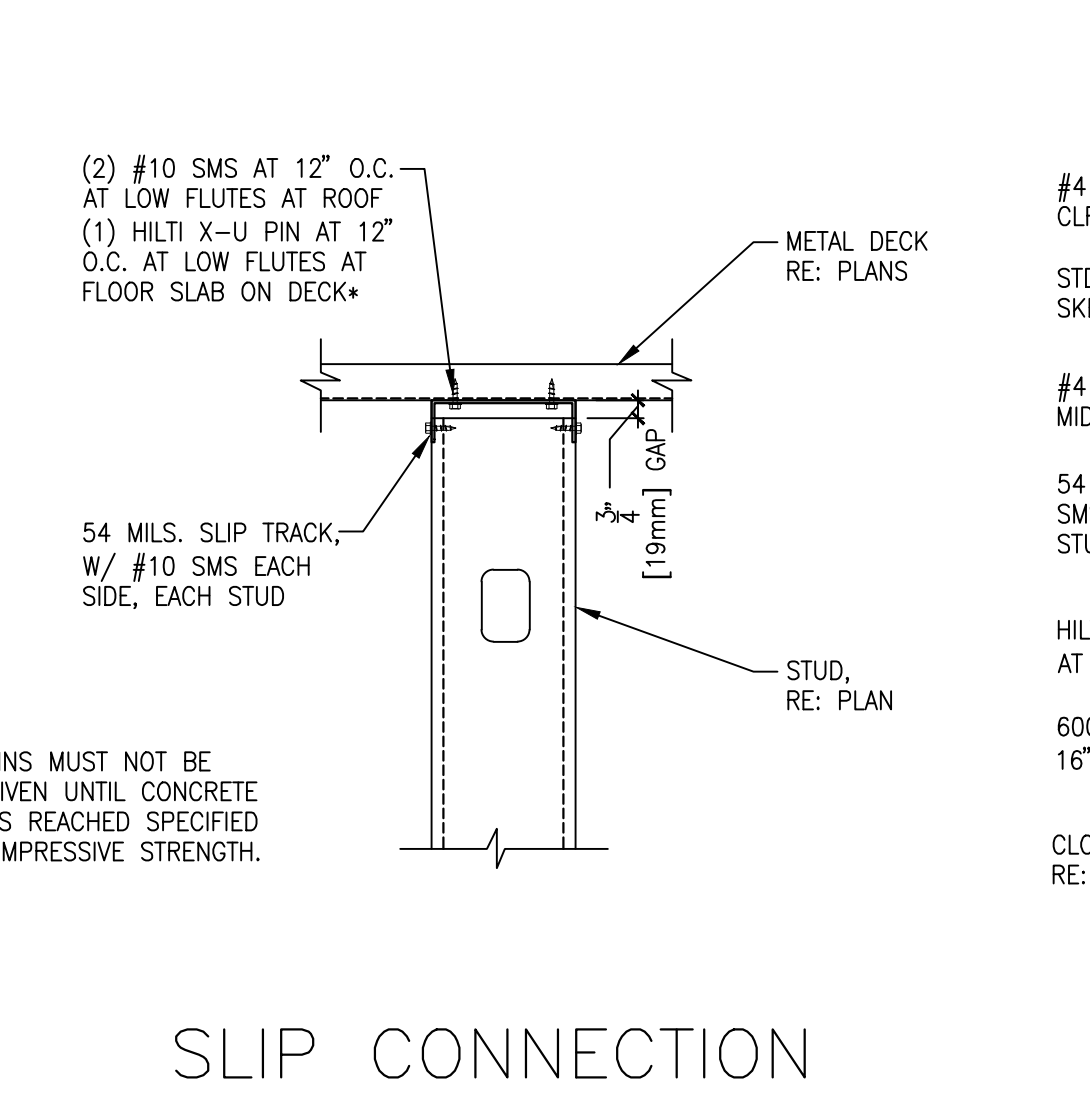
1 BUILT-UP SILL TRACK
SCALE: 1 1/2" = 1'-0"



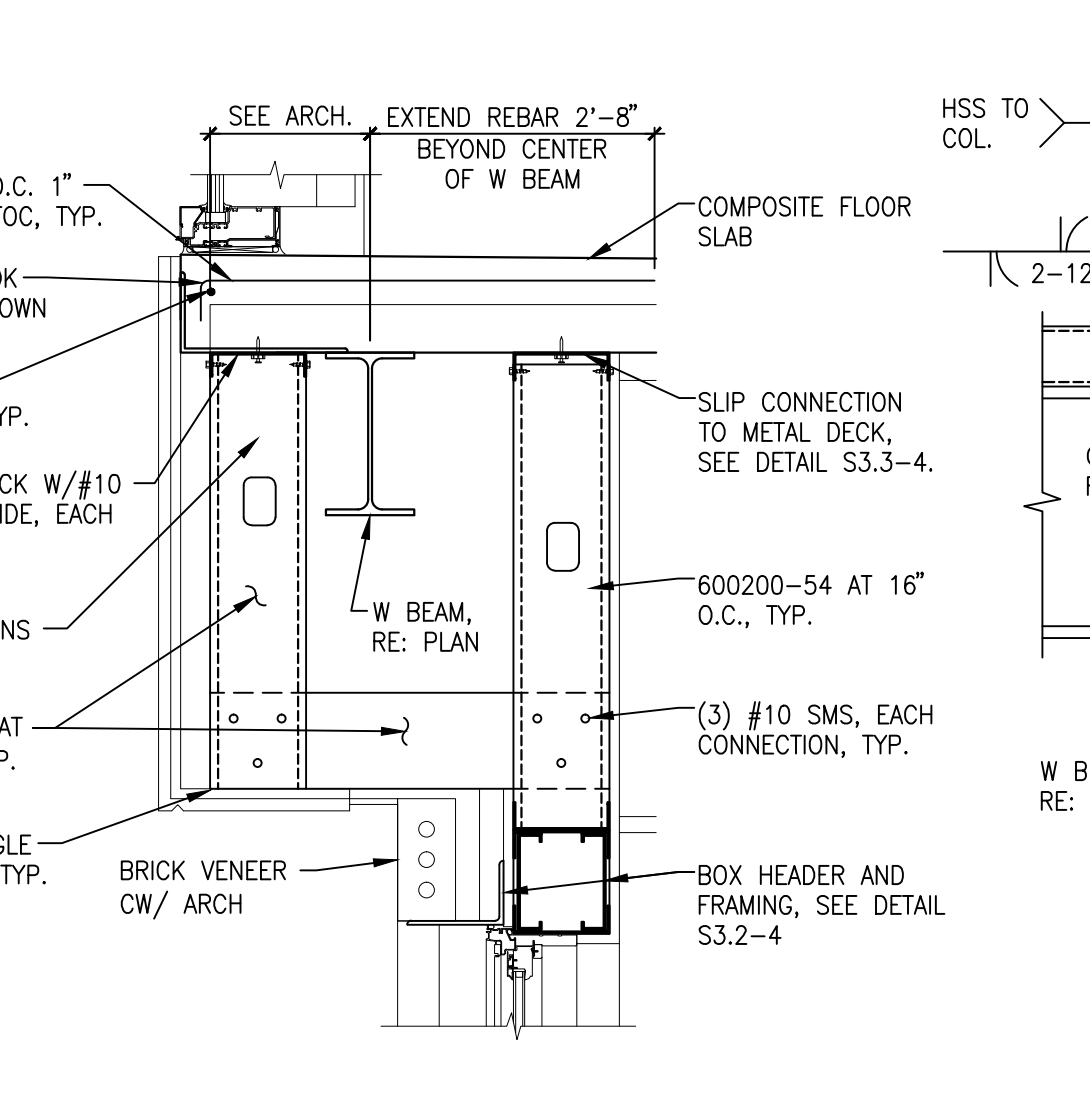
2 JAMB CONN AT SLAB
SCALE: 3" = 1'-0"



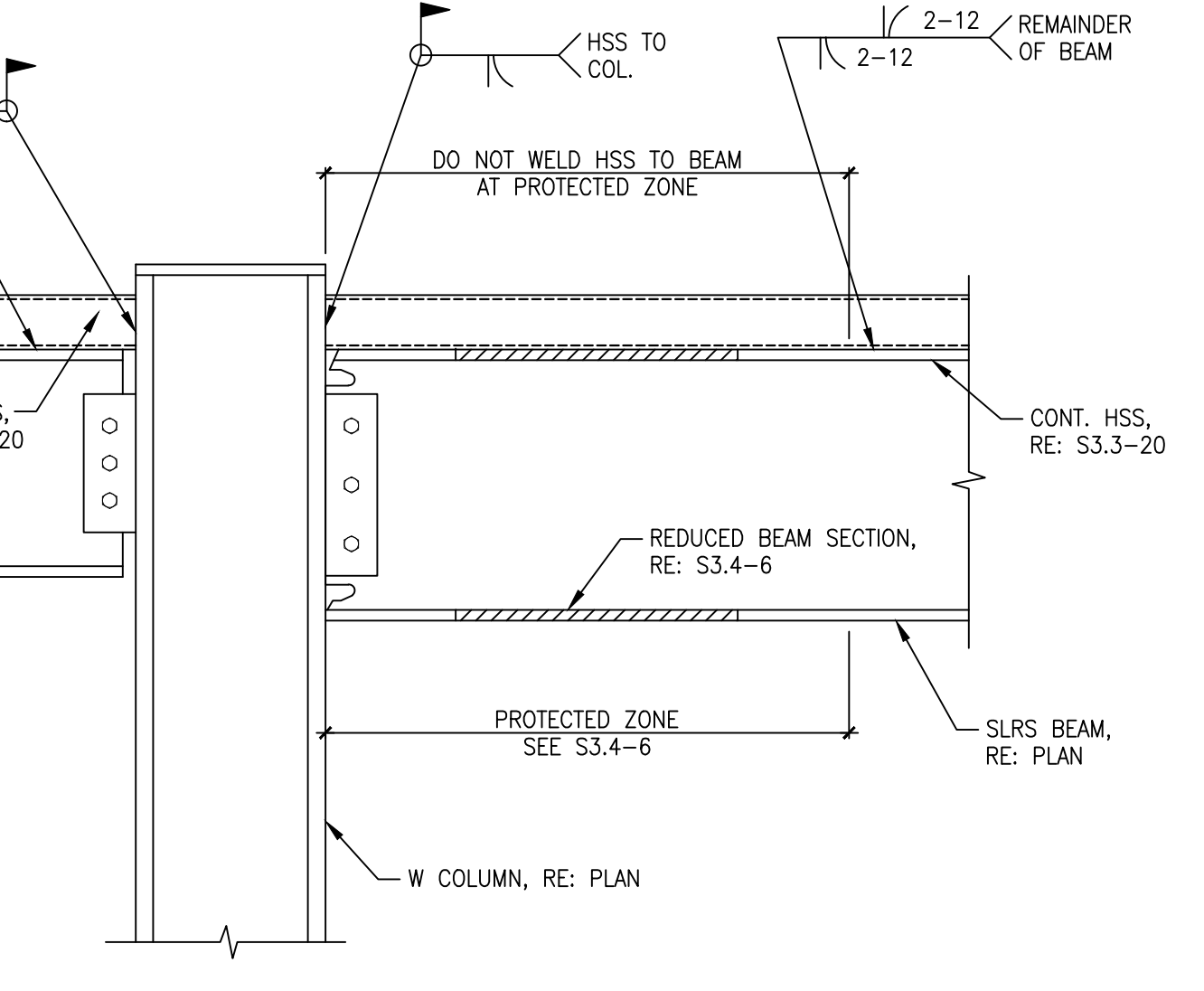
3 MOMENT FRAME COLUMN SPLICE
SCALE: 3" = 1'-0"



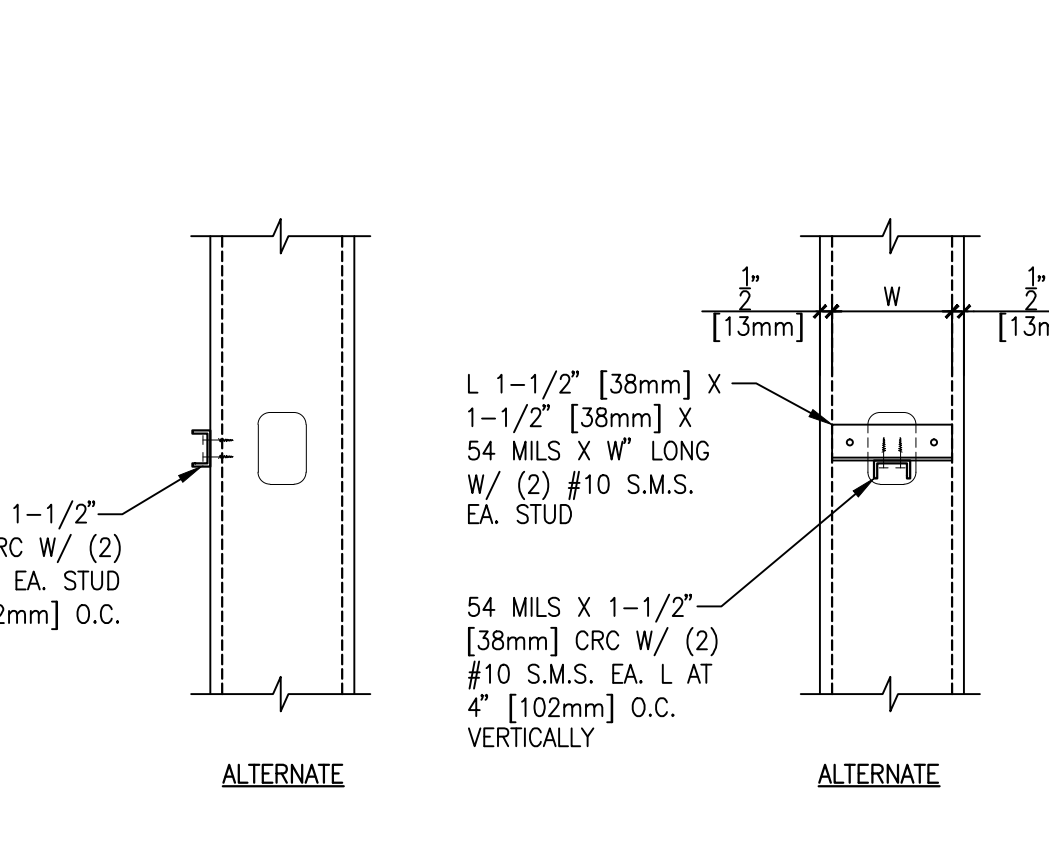
4 SLIP CONNECTION TO METAL DECK
SCALE: 1 1/2" = 1'-0"



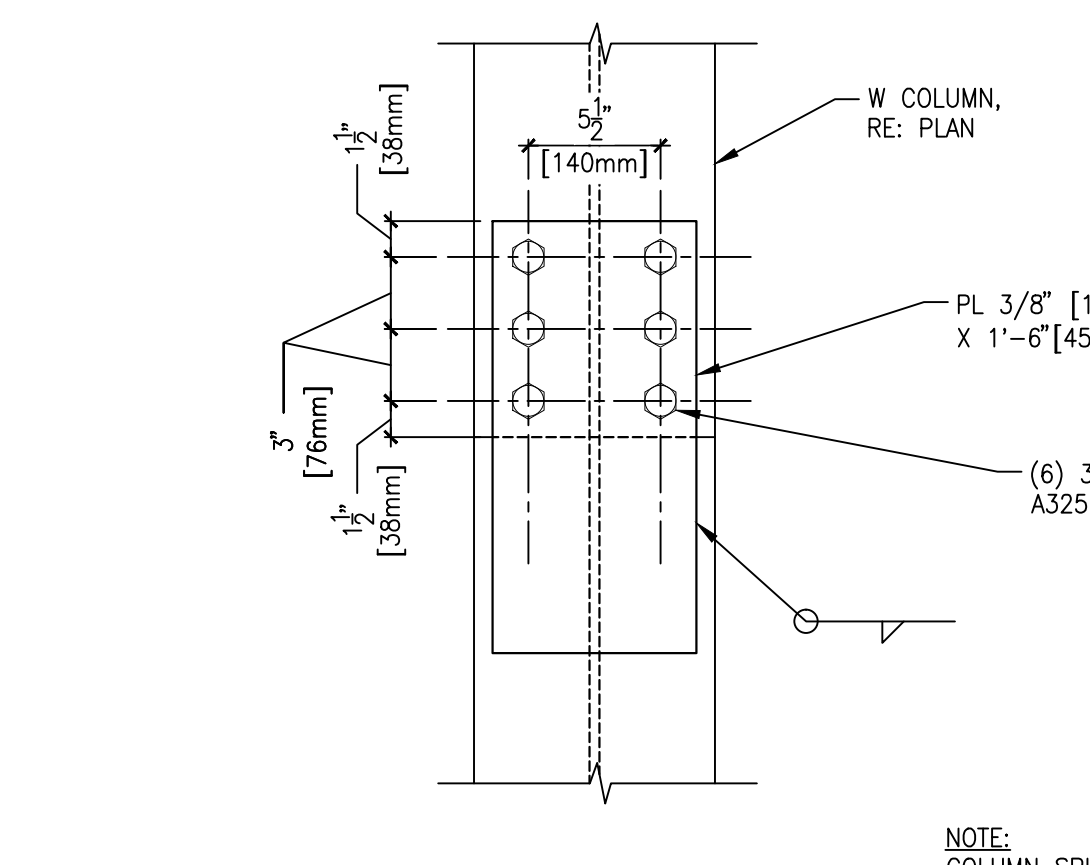
5 EDGE OF DECK SLAB
SCALE: 1" = 1'-0"



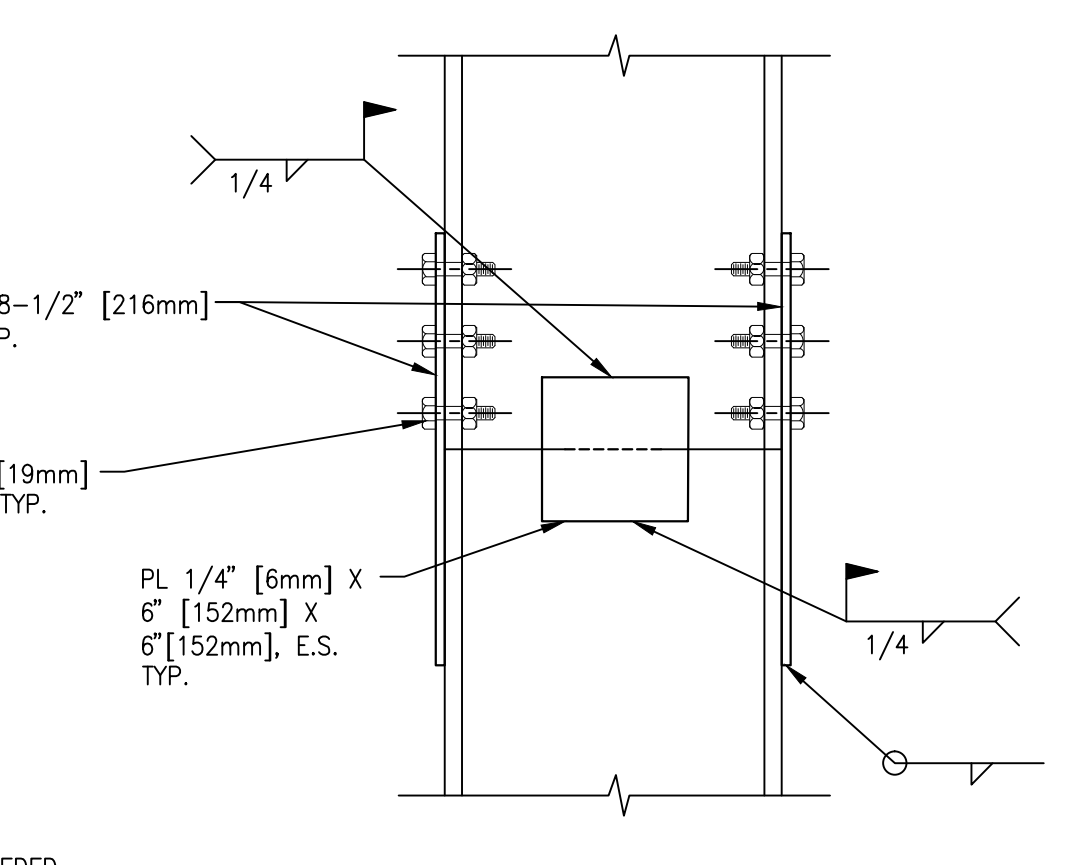
6 HSS AT ROOF SLRS BEAM
SCALE: NTS



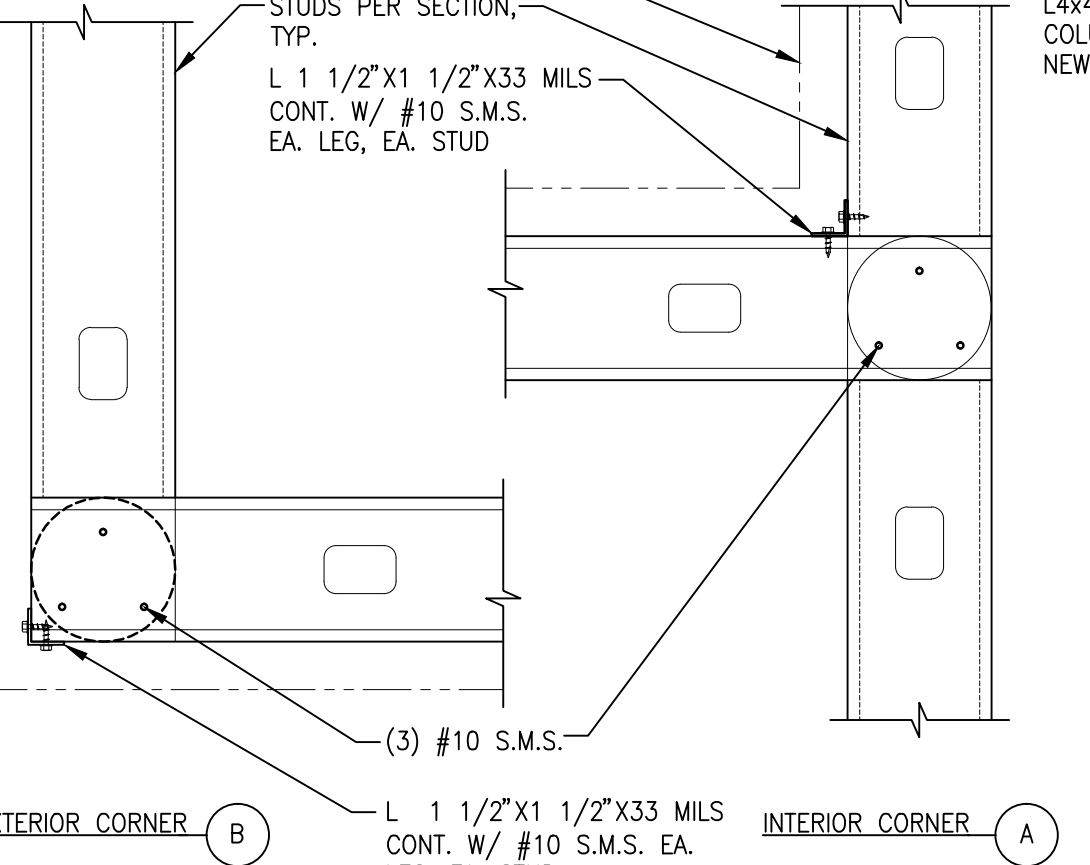
7 NON-MOMENT FRAME COLUMN SPLICE
SCALE: 1 1/2" = 1'-0"



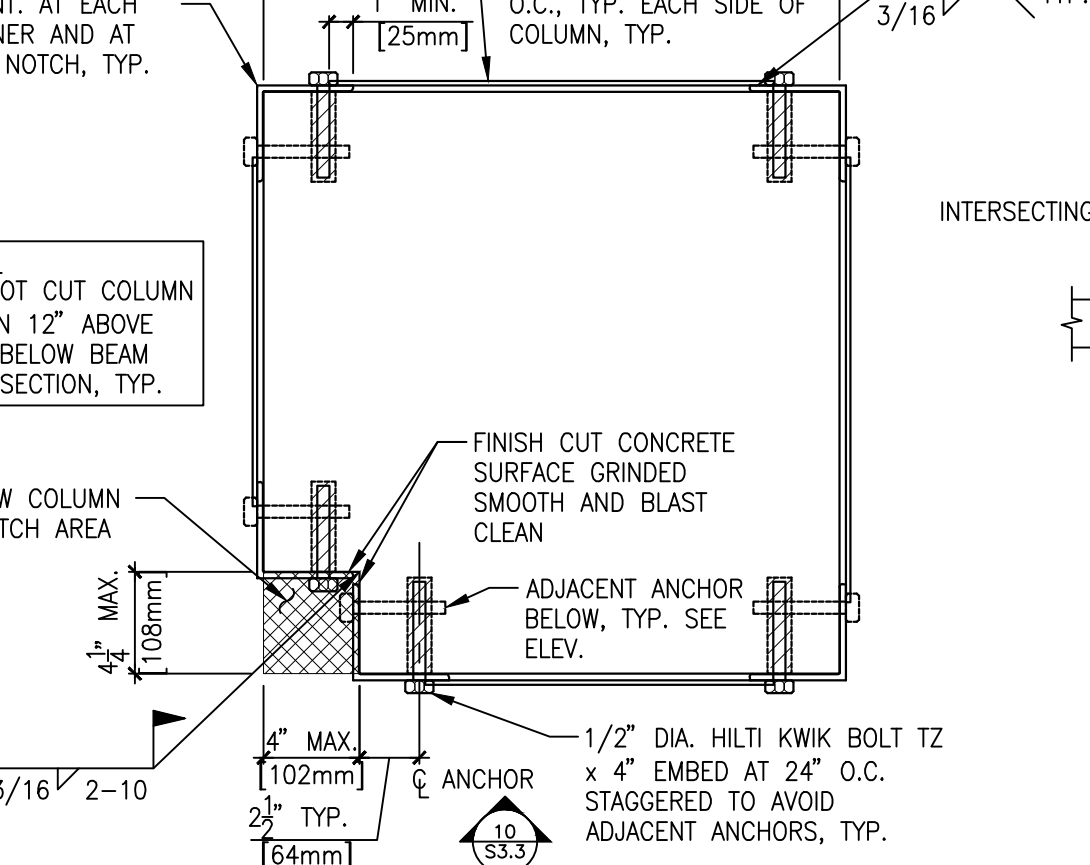
8 TYP. CORNER CLOSURE
SCALE: 1 1/2" = 1'-0"



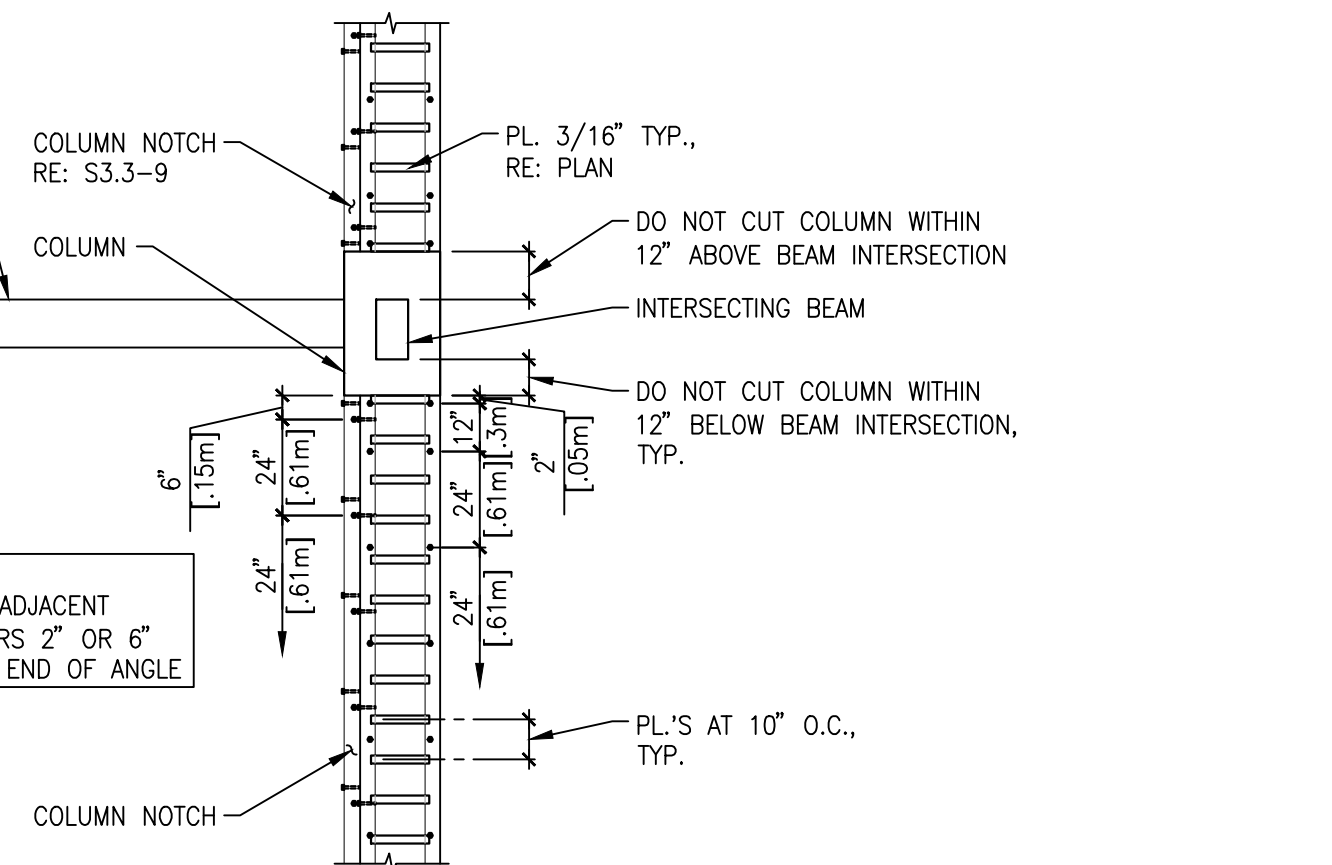
9 TYP. CONCRETE COLUMN NOTCH AT ELEVATOR
SCALE: 1 1/2" = 1'-0"



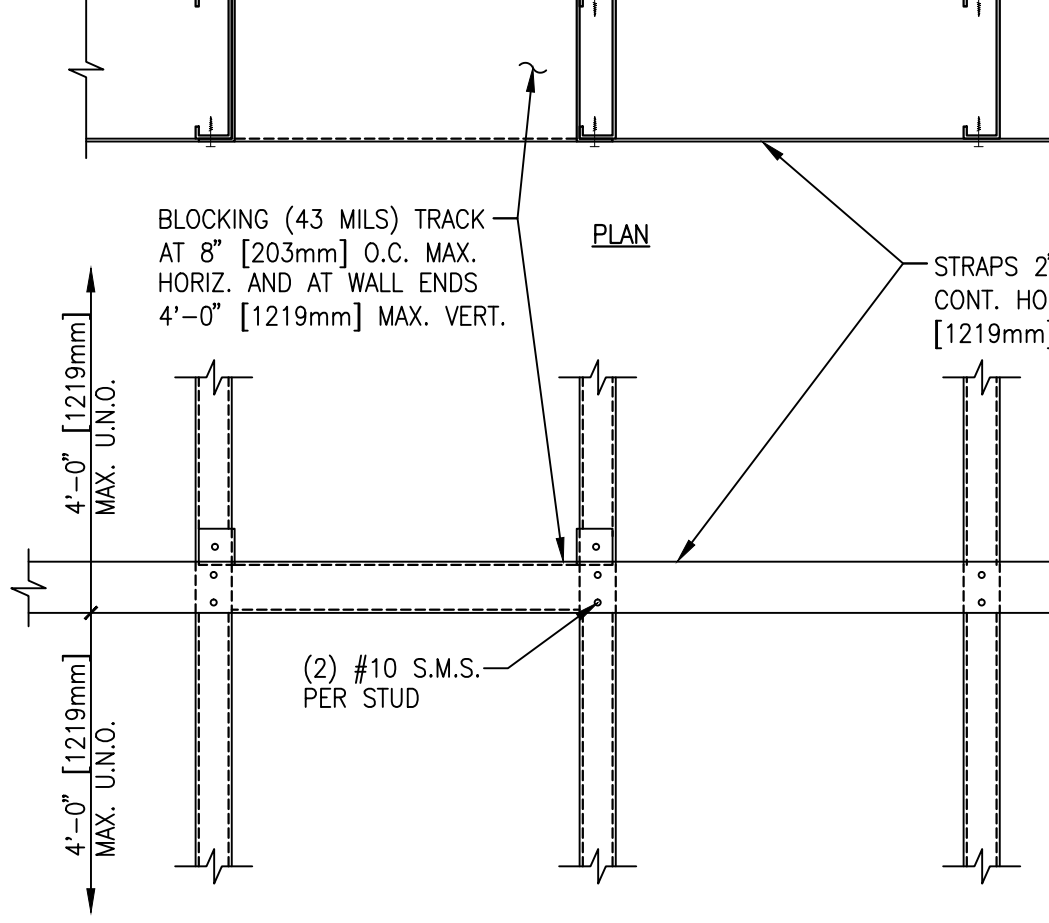
10 ELEVATION COLUMN NOTCH
SCALE: 1/2" = 1'-0"



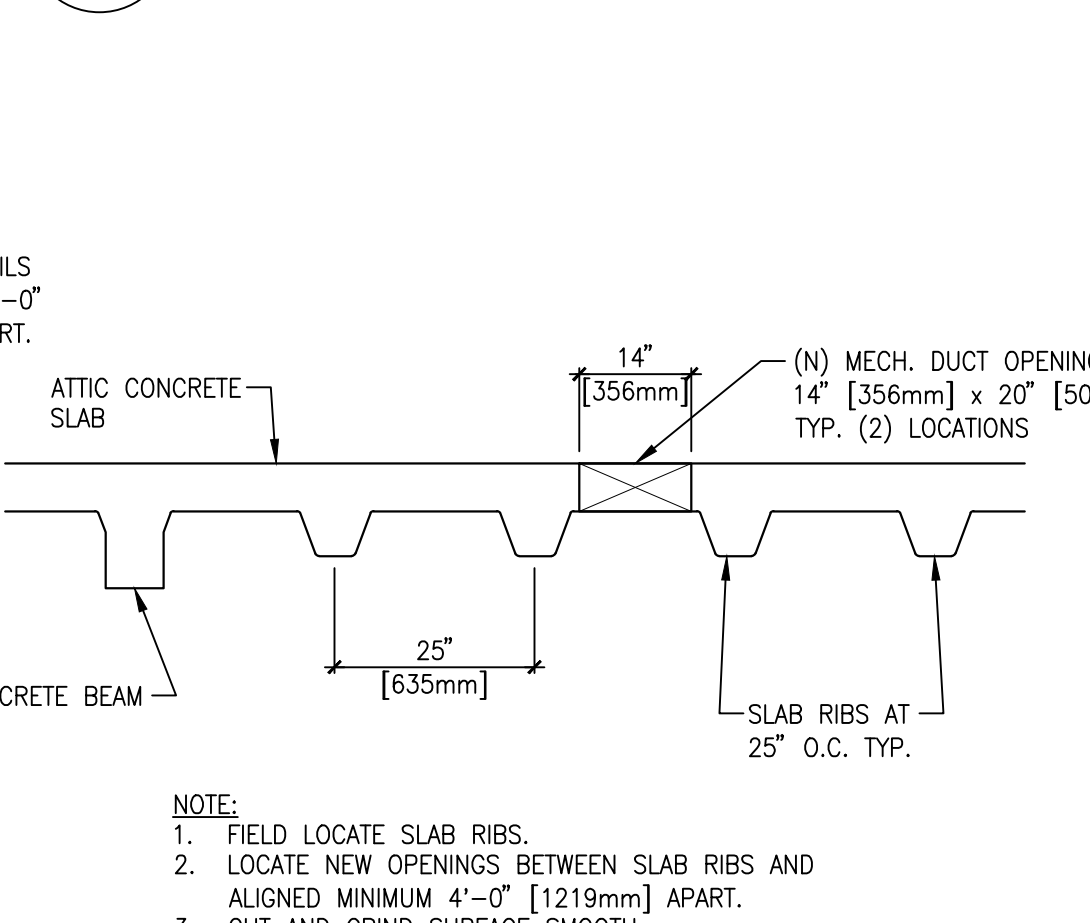
11 BRIDGING DETAIL
SCALE: 1 1/2" = 1'-0"



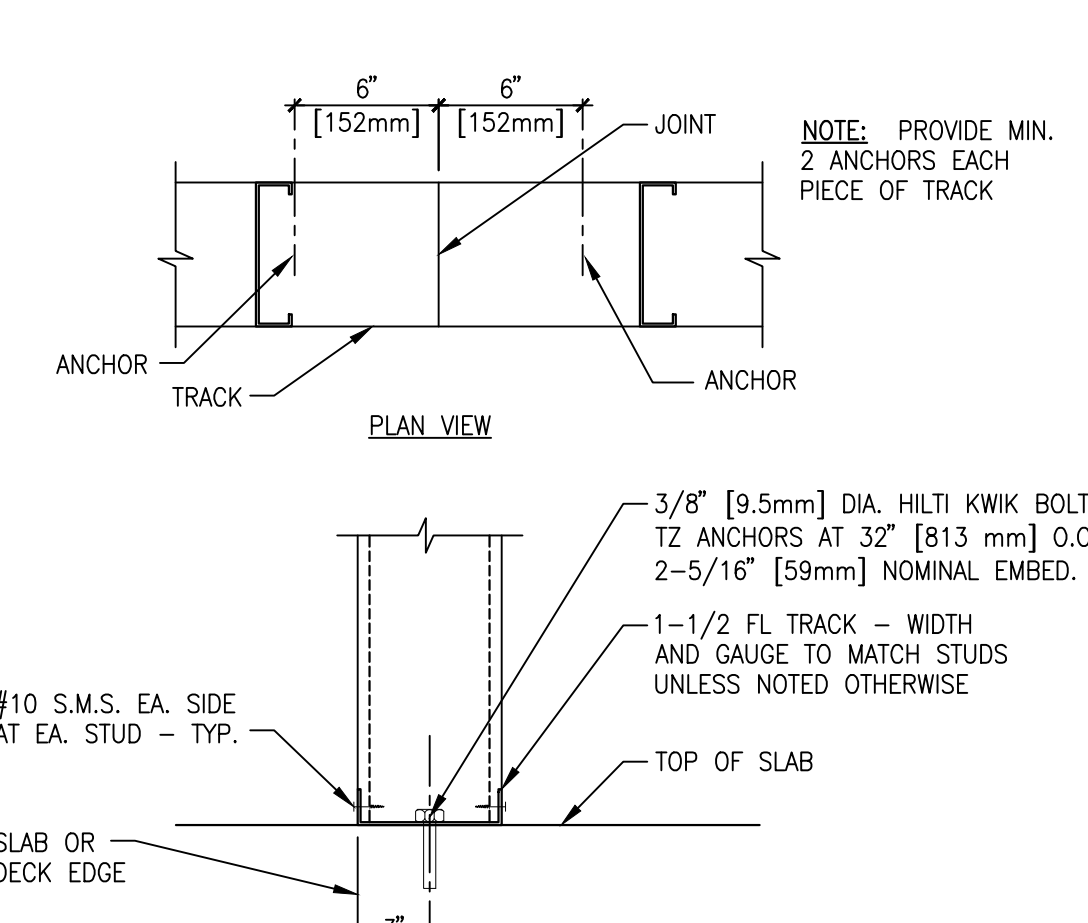
12 MECH. OPENING AT ATTIC
SCALE: 1/2" = 1'-0"



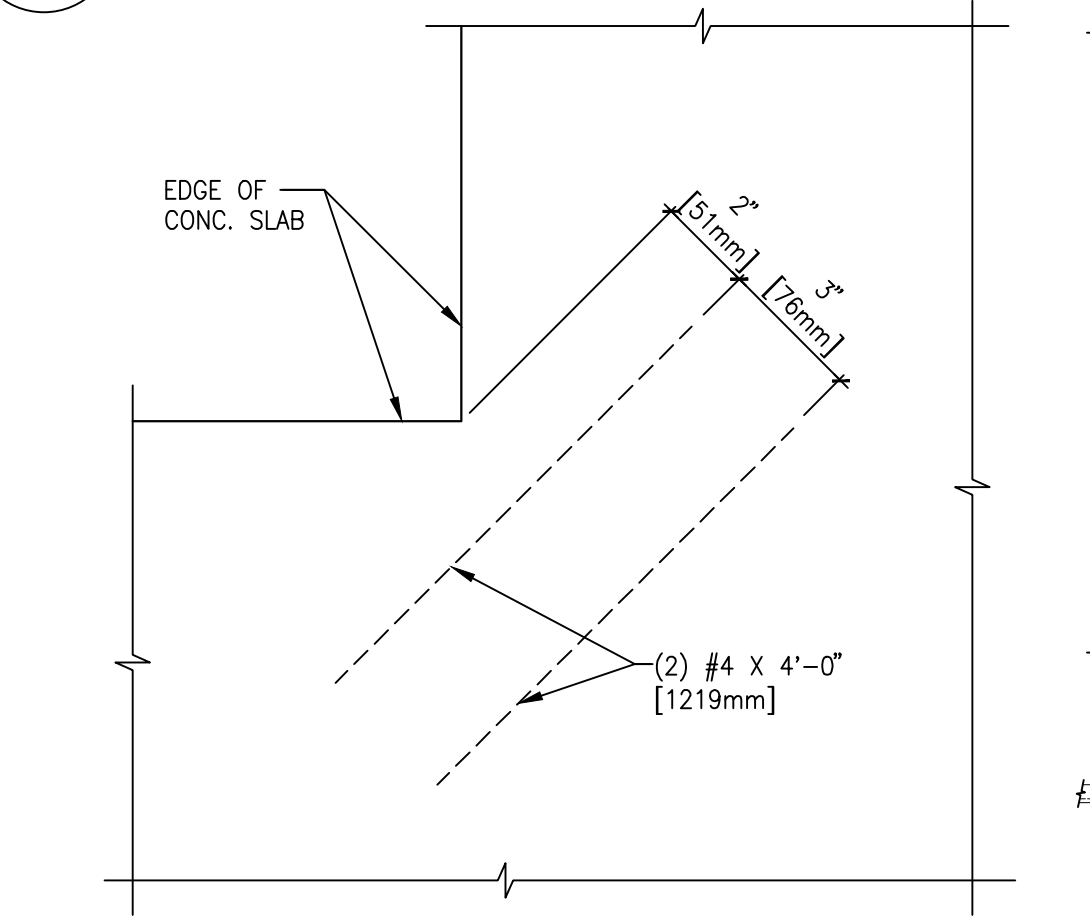
13 TYP. STUD WALL BRACING
SCALE: 1 1/2" = 1'-0"



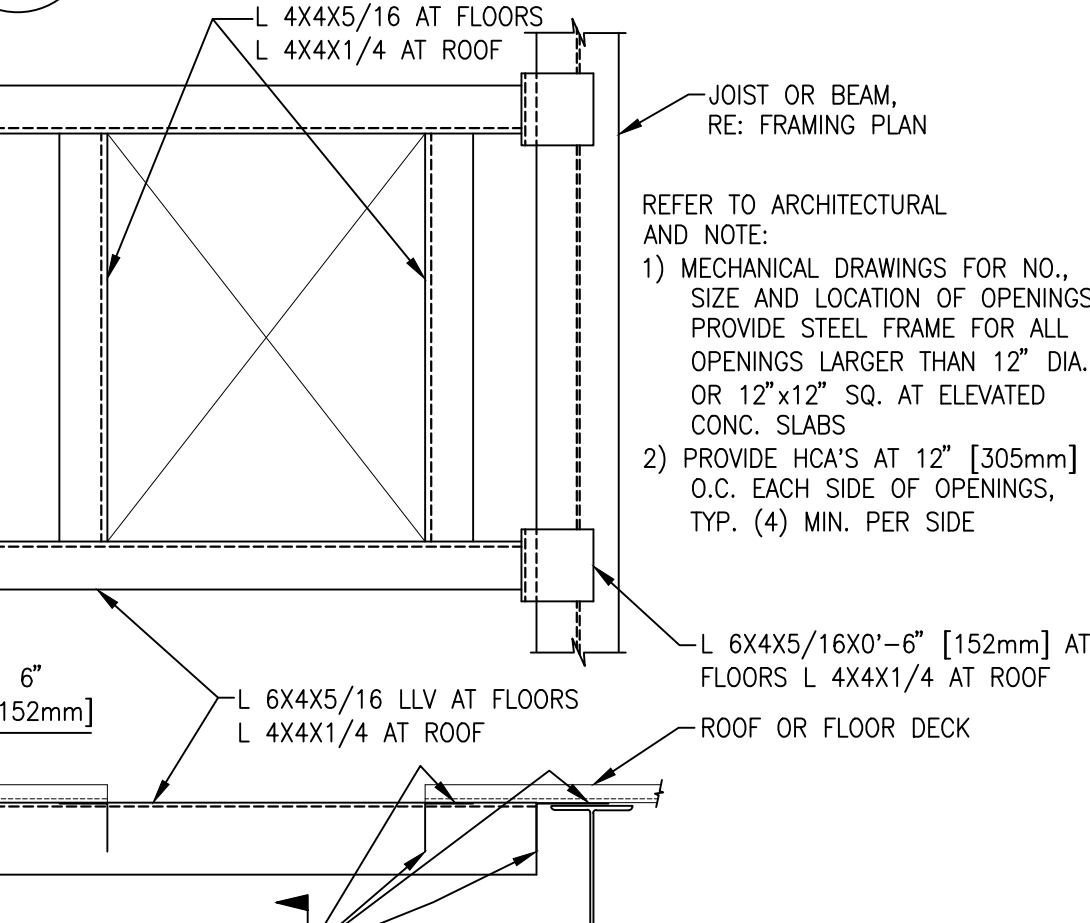
14 REINFORCEMENT AT RE-ENTRANT CORNERS
SCALE: 3" = 1'-0"



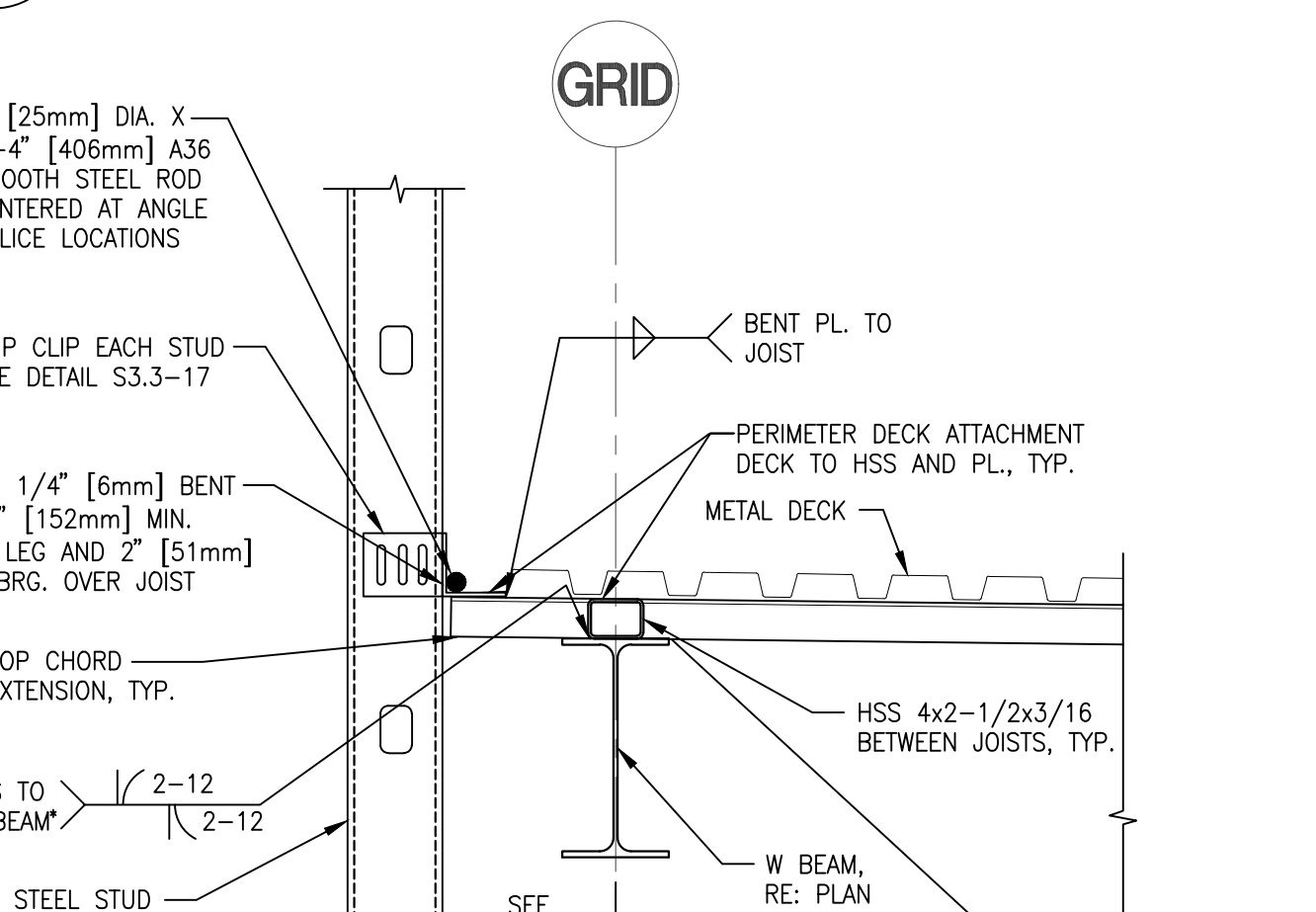
15 FRAMING AT FLOOR/ROOF OPENINGS
SCALE: 3/4" = 1'-0"



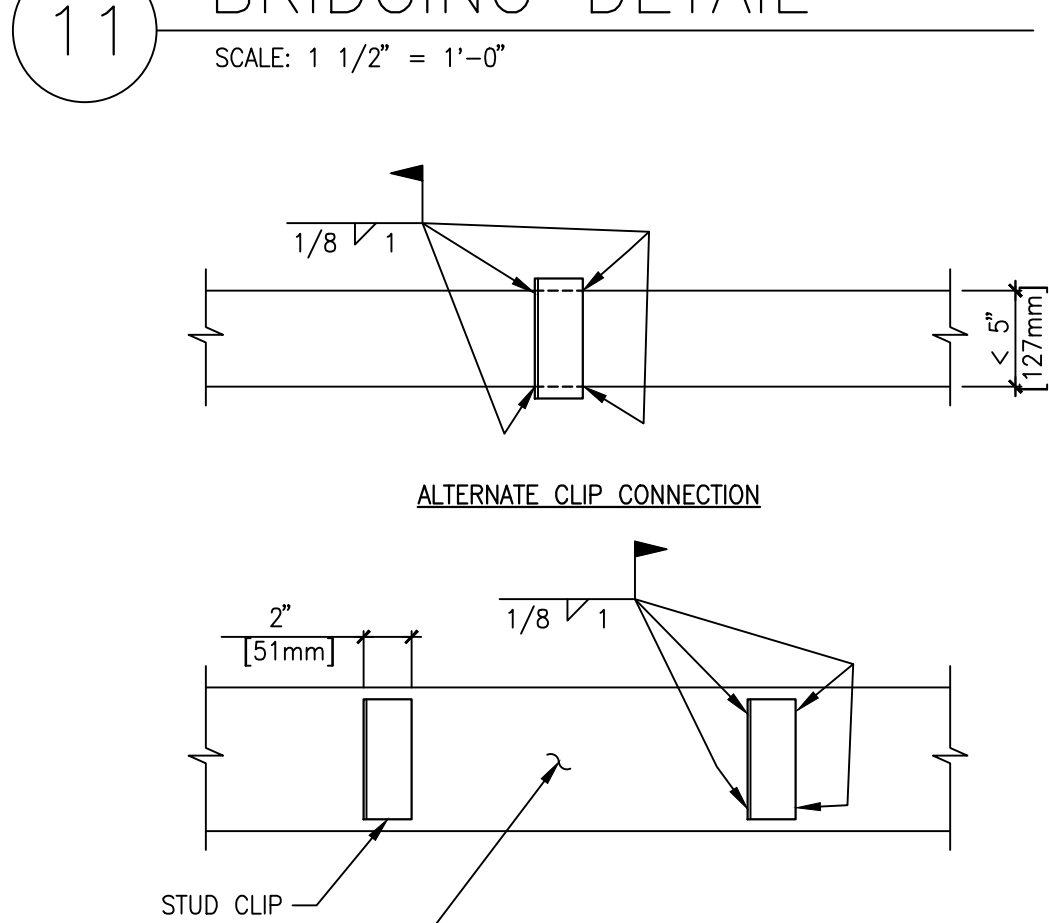
16 FRAMING DETAIL
SCALE: 1" = 1'-0"



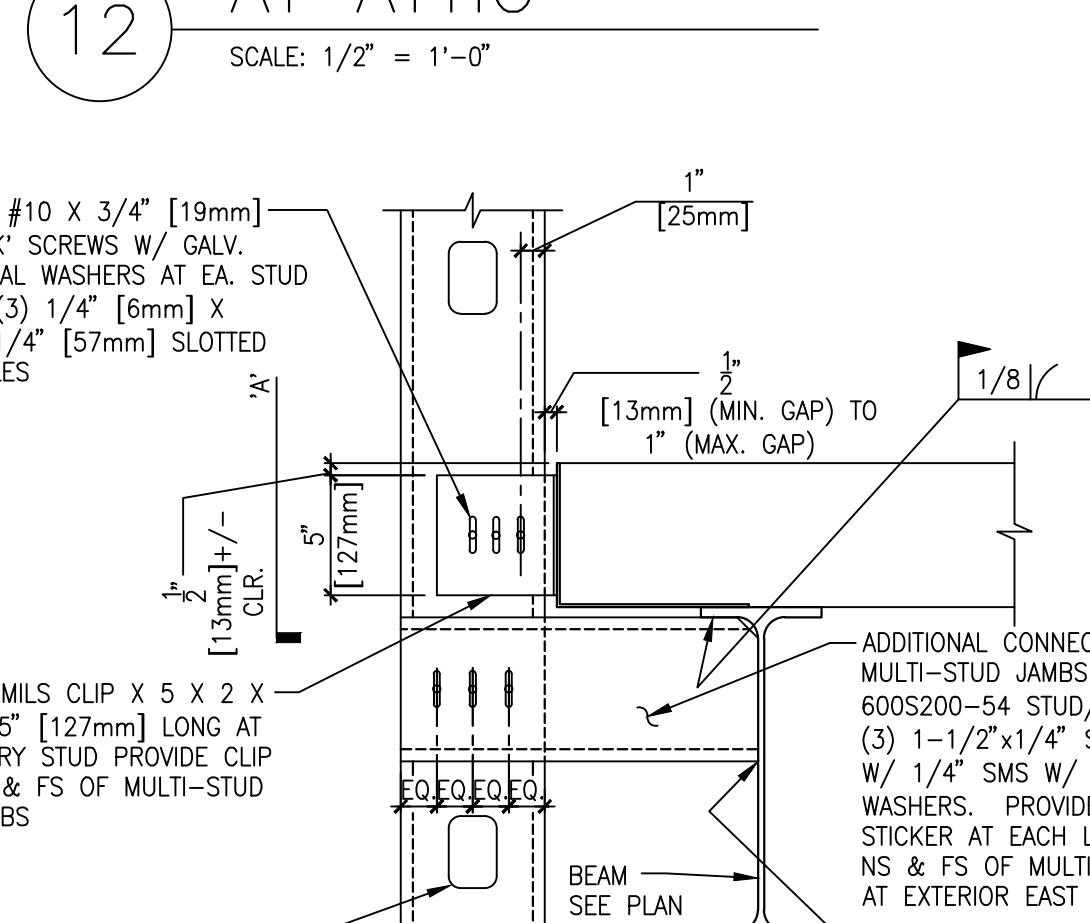
17 TYP. SLIP CONNECTION
SCALE: 1 1/2" = 1'-0"



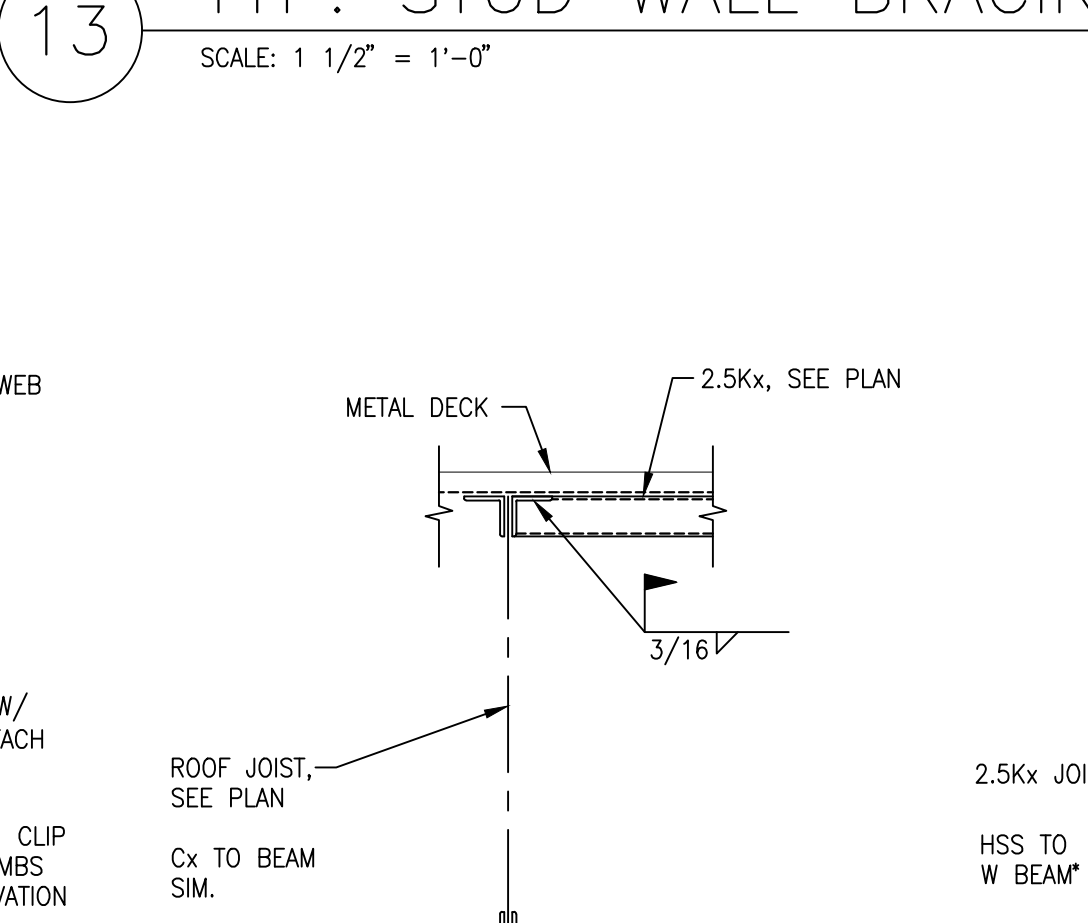
18 JOIST SUBSTITUTE & OUTRIGGER TO JOIST & BEAM
SCALE: 1" = 1'-0"



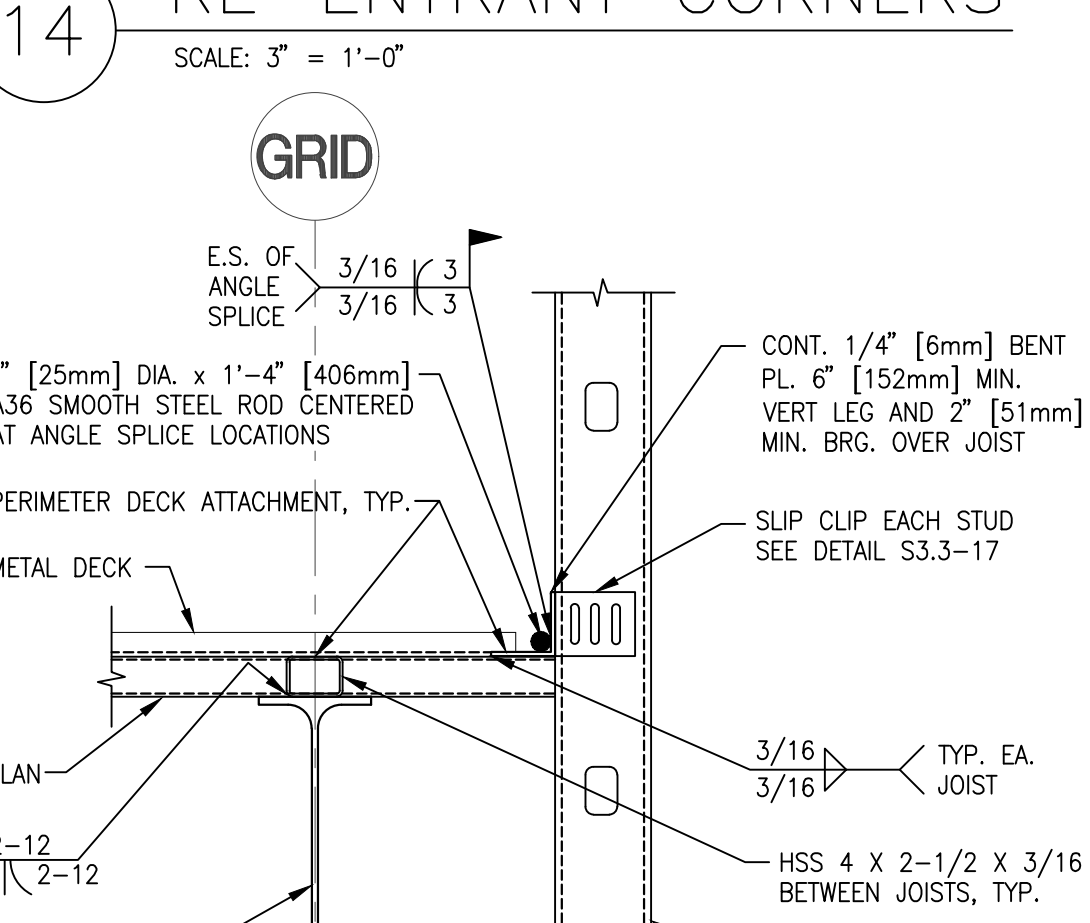
19 FRAMING DETAIL
SCALE: 1" = 1'-0"



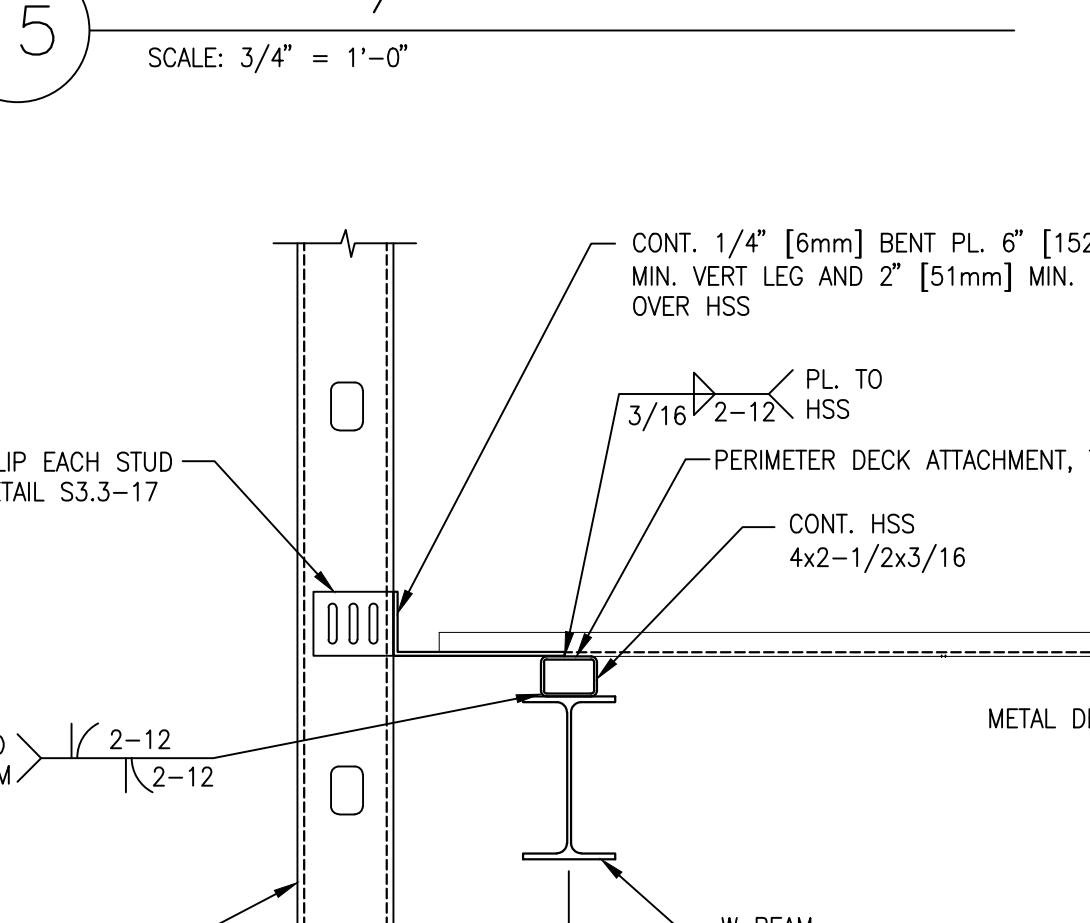
20 FRAMING DETAIL
SCALE: 1" = 1'-0"



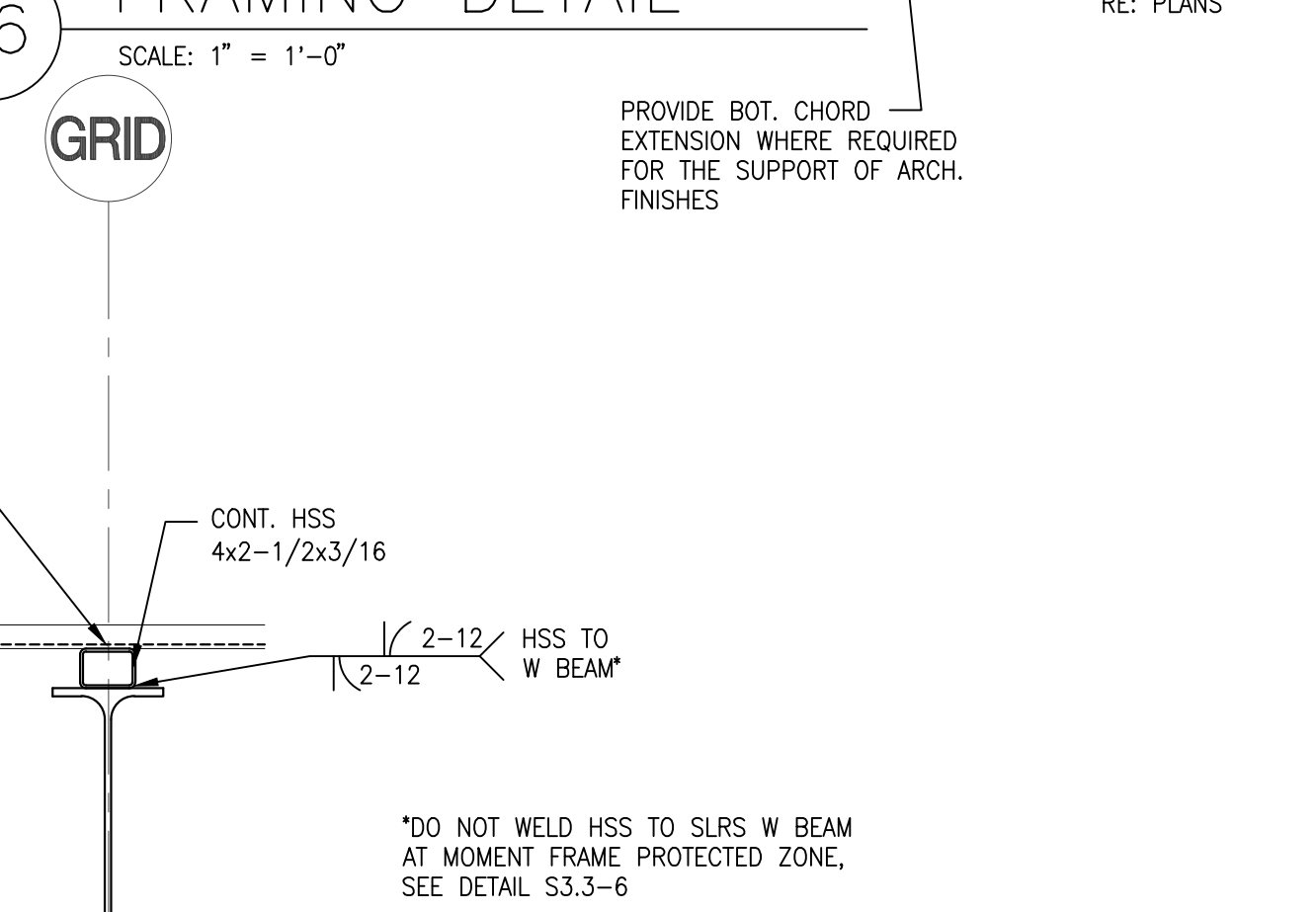
21 FRAMING DETAIL
SCALE: 1" = 1'-0"



22 FRAMING DETAIL
SCALE: 1" = 1'-0"



23 FRAMING DETAIL
SCALE: 1" = 1'-0"



24 FRAMING DETAIL
SCALE: 1" = 1'-0"

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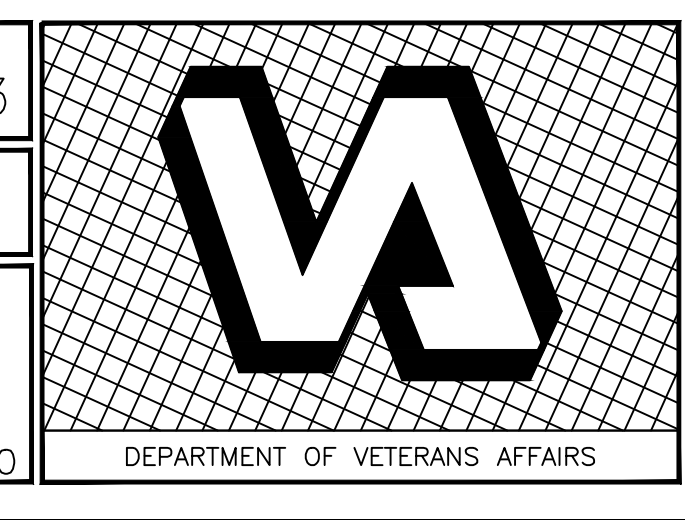
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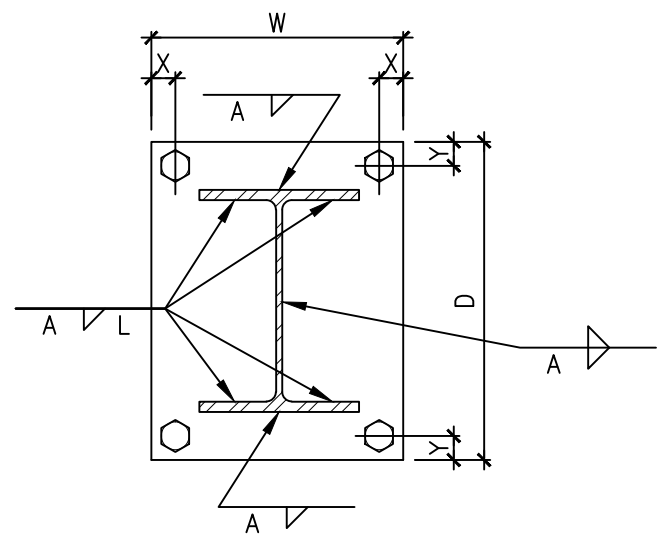
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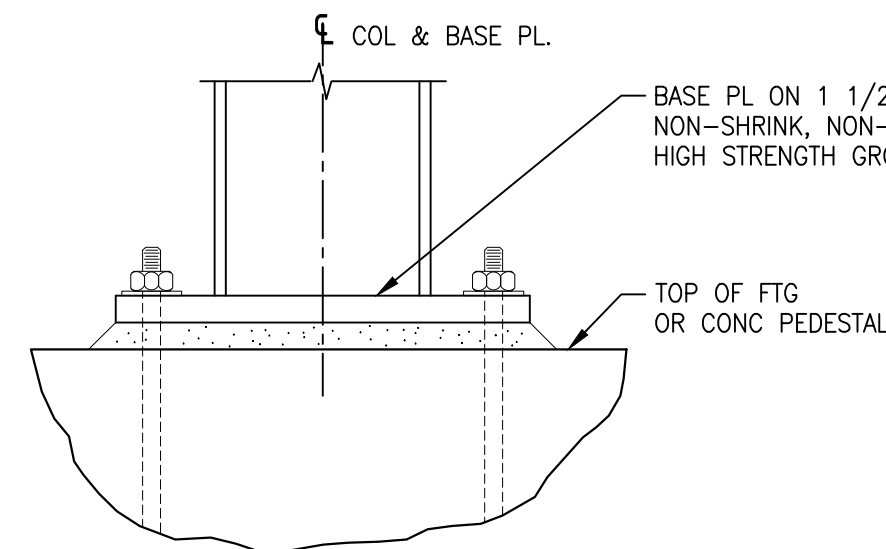


ONE EIGHTH INCH = ONE FOOT
ONE QUARTER INCH = ONE FOOT
THREE EIGHTHS INCH = ONE FOOT
THREE QUARTERS INCH = ONE FOOT
ONE HALF INCH = ONE FOOT
ONE AND ONE HALF INCH = ONE FOOT
THREE INCHES = ONE FOOT

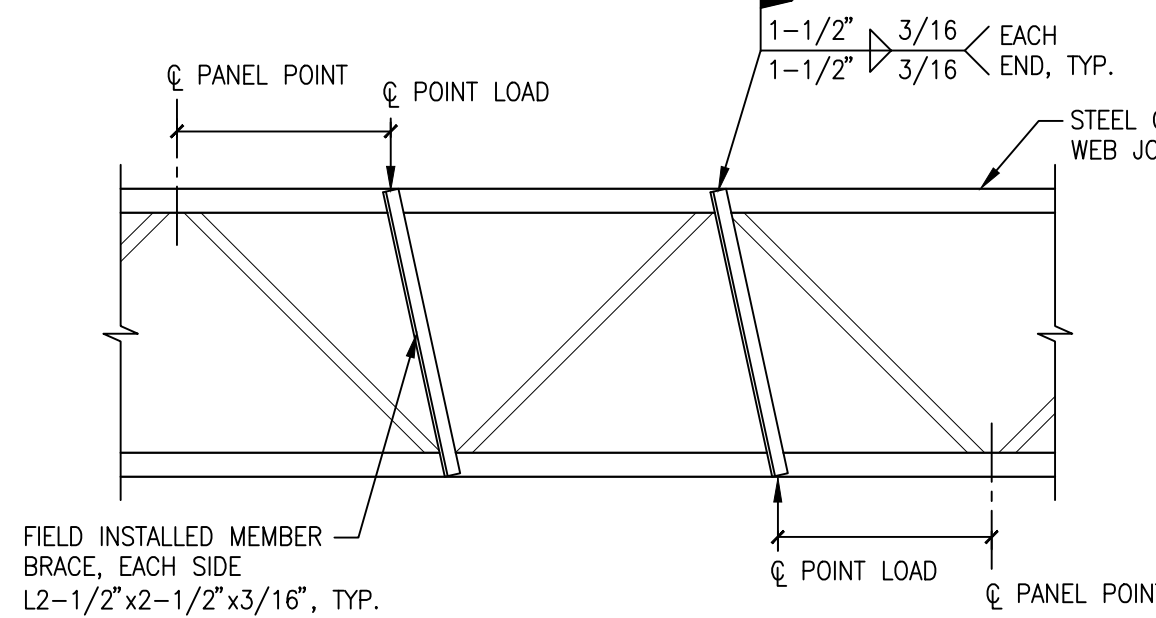


WF	BASE PL THICKNESS	W	D	X	Y	A	L	AR DIA
W14X61	1 1/4"	1'-4"	1'-8"	1 1/2"	1 1/2"	5/16"	3 1/2"	1"
W14X145	1 1/4"	1'-10"	1'-10"	1 1/2"	1 1/2"	5/16"	3 1/2"	1"
W14X193	1 1/4"	1'-10"	1'-10"	1 1/2"	1 1/2"	5/16"	3 1/2"	1"

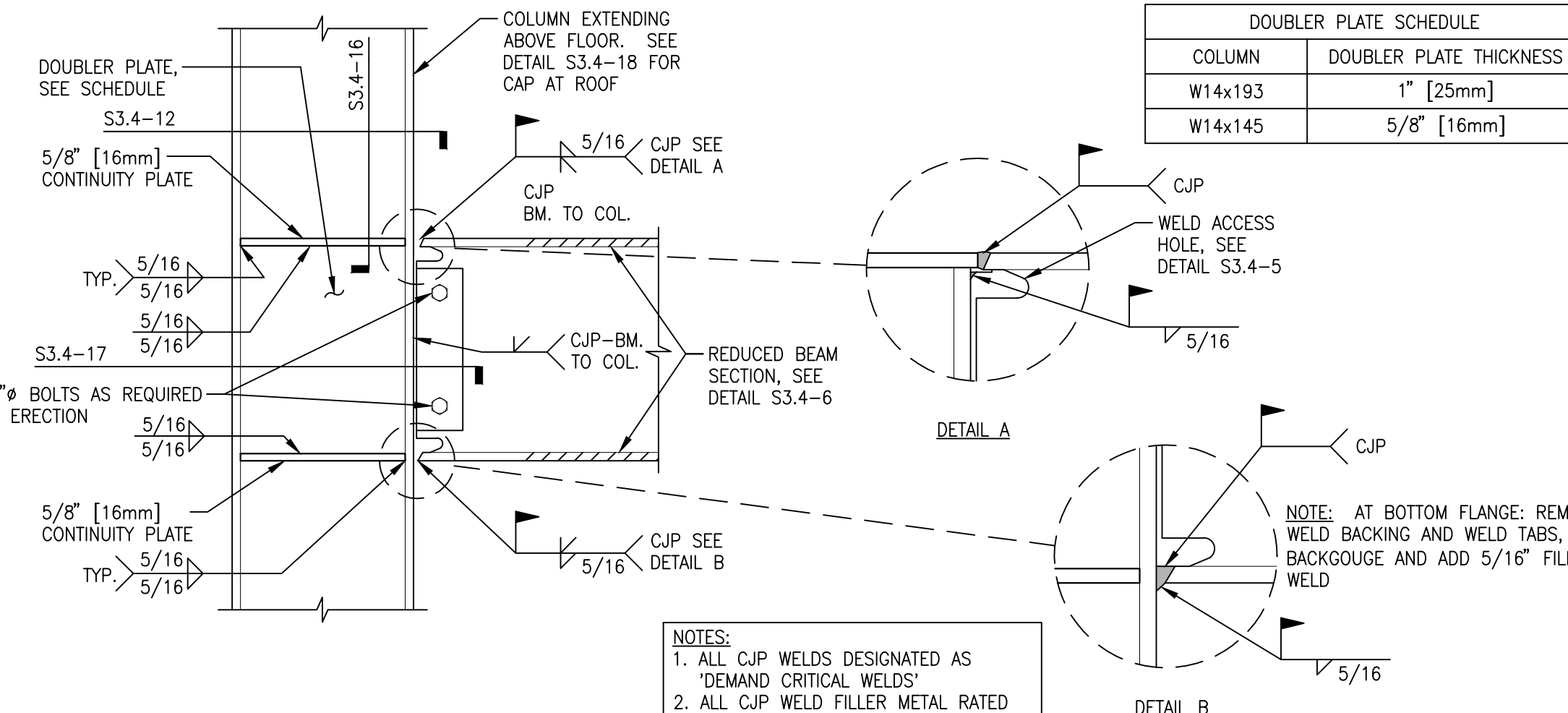
1. SEE DETAIL S3.4-2 FOR ACCEPTABLE ANCHOR ROD HOLES.
SEE FOUNDATION DETAILS FOR ANCHOR ROD EMBEDMENT REQUIREMENTS.



- NOTES:
- USE OVERSIZED HOLES FOR ANCHOR BOLTS. ACCORDING TO AISC (13TH ED.) TABLE 14-2.
 - WASHERS SHALL BE INSTALLED OVER OVERSIZED HOLES. CONTRACTOR IS TO PROVIDE TEMPLATE (1/8\"/>



- NOTES:
- CONCENTRATED POINT LOAD APPLIED AT TOP OR BOTTOM CHORD AWAY FROM JOIST PANEL POINT.
 - MEMBER BRACE INSTALLED EACH SIDE OF JOIST TO NEAREST OPPOSITE PANEL POINT. DETAIL NOT REQUIRED FOR LOADS LESS THAN 250 LBS. NOTIFY STRUCTURAL ENGINEER OF ANY LOAD NOT NOTED ON STRUCTURAL DRAWINGS THAT EXCEED 500 LBS.
 - DETAIL NOT REQUIRED FOR LOADS APPLIED TO PANEL POINT OR FOR LOADS THE JOIST HAS BEEN SPECIFICALLY DESIGNED FOR.

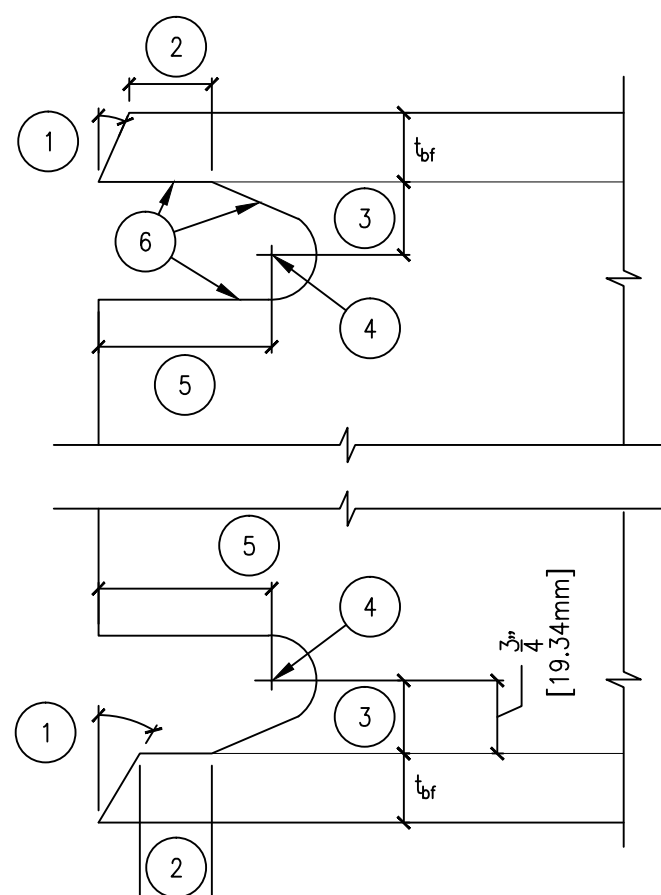


- NOTES:
- ALL CJP WELDS DESIGNATED AS 'DEMAND CRITICAL WELDS'.
 - ALL CJP WELD FILLER METAL RATED FOR CVN OF 30 FT-LBS AT -20 DEG. F AND 40 FT-LBS AT 70 DEG. F.
 - ALL OTHER WELD FILLER METAL RATED FOR CVN OF 20 FT-LBS AT 0 DEG. F.

DOUBLER PLATE SCHEDULE	
COLUMN	DOUBLER PLATE THICKNESS
W14X193	1" [25mm]
W14X145	5/8" [16mm]

1 WF BASE PL SCHED

SCALE: NTS

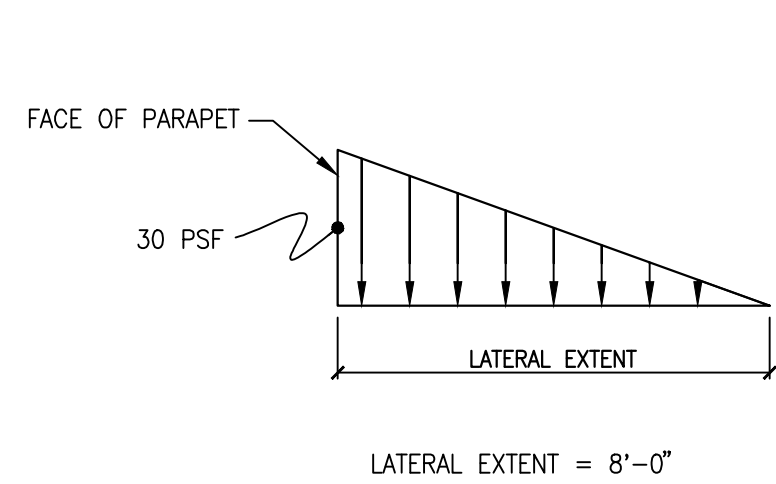


- NOTES:
- BEVEL AS REQUIRED FOR SELECTED GROOVE WELD.
 - LARGER OF t_w OR 1/2 IN. (PLUS 1/2 t_w OR MINUS 1/4 t_w).
 - 3/4 t_w TO t_w , 3/4" MINIMUM ($\pm 1/4$).
 - 3/8" MINIMUM RADIUS (PLUS NOT LIMITED, MINUS 0).
 - 3 t_w ($\pm 1/2$).
 - SEE FEMA-353, "RECOMMEND SPECIFICATIONS AND QUALITY ASSURANCE GUIDELINES FOR STEEL MOMENT-FRAME CONSTRUCTION FOR SEISMIC APPLICATIONS," FOR FABRICATION DETAILS INCLUDING CUTTING METHODS AND SMOOTHNESS REQUIREMENTS.

TOLERANCES SHALL NOT ACCUMULATE TO THE EXTENT THAT THE ANGLE OF THE ACCESS HOLE CUT TO THE FLANGE SURFACE EXCEEDS 25°.

5 WELD ACCESS HOLE (MOMENT CONNECTIONS)

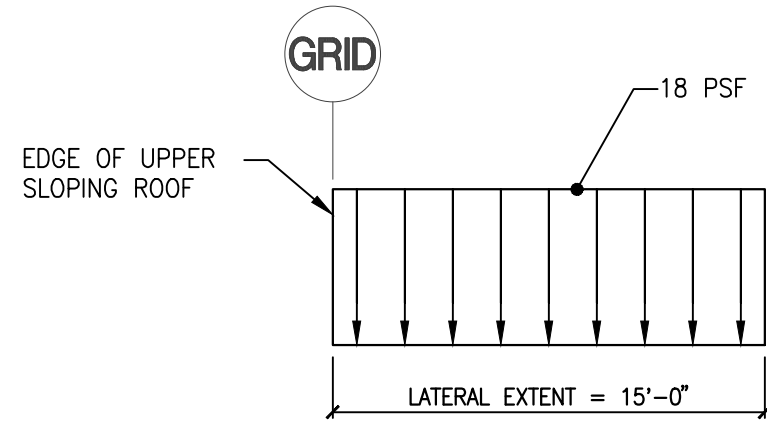
SCALE: NTS



NOTE:
DRIFT SURCHARGE IS ADDITION TO UNIFORM ROOF SNOW LOAD.
DRIFT SURCHARGE NEED NOT BE APPLIED SIMULTANEOUSLY TO JOISTS WITHIN LATERAL EXTENT OF TWO SEPARATE EXISTING BUILDING FACES.

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS



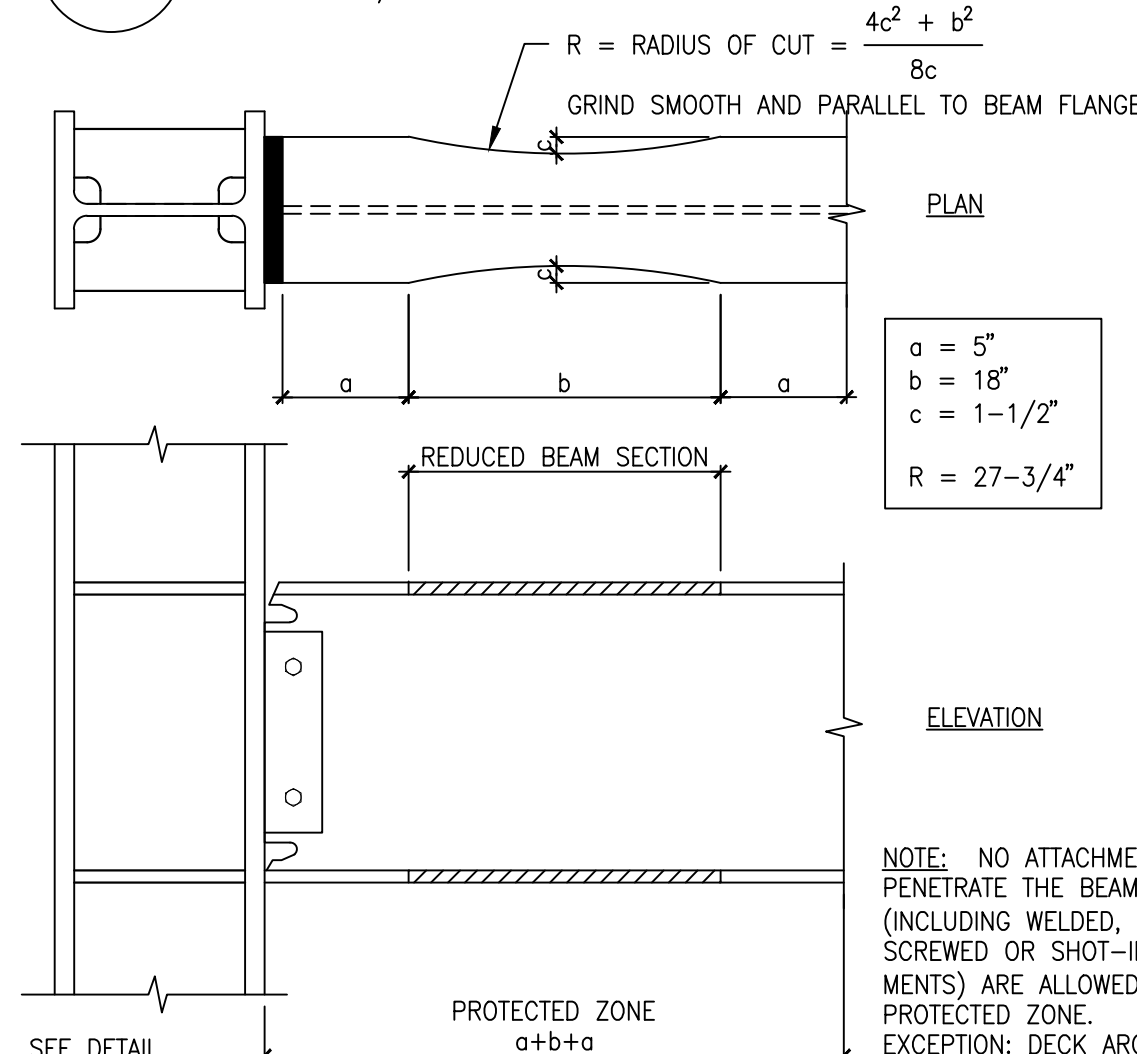
NOTE:
SLIDING SNOW SURCHARGE IS ADDITION TO UNIFORM ROOF SNOW LOAD.
SLIDING SNOW SURCHARGE NEED NOT BE APPLIED SIMULTANEOUSLY TO JOISTS WITHIN LATERAL EXTENT OF TWO SEPARATE EXISTING BUILDING FACES.

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

2 TYP. DETAIL BASE PLATE CONNECTION

SCALE: 1 1/2" = 1'-0"



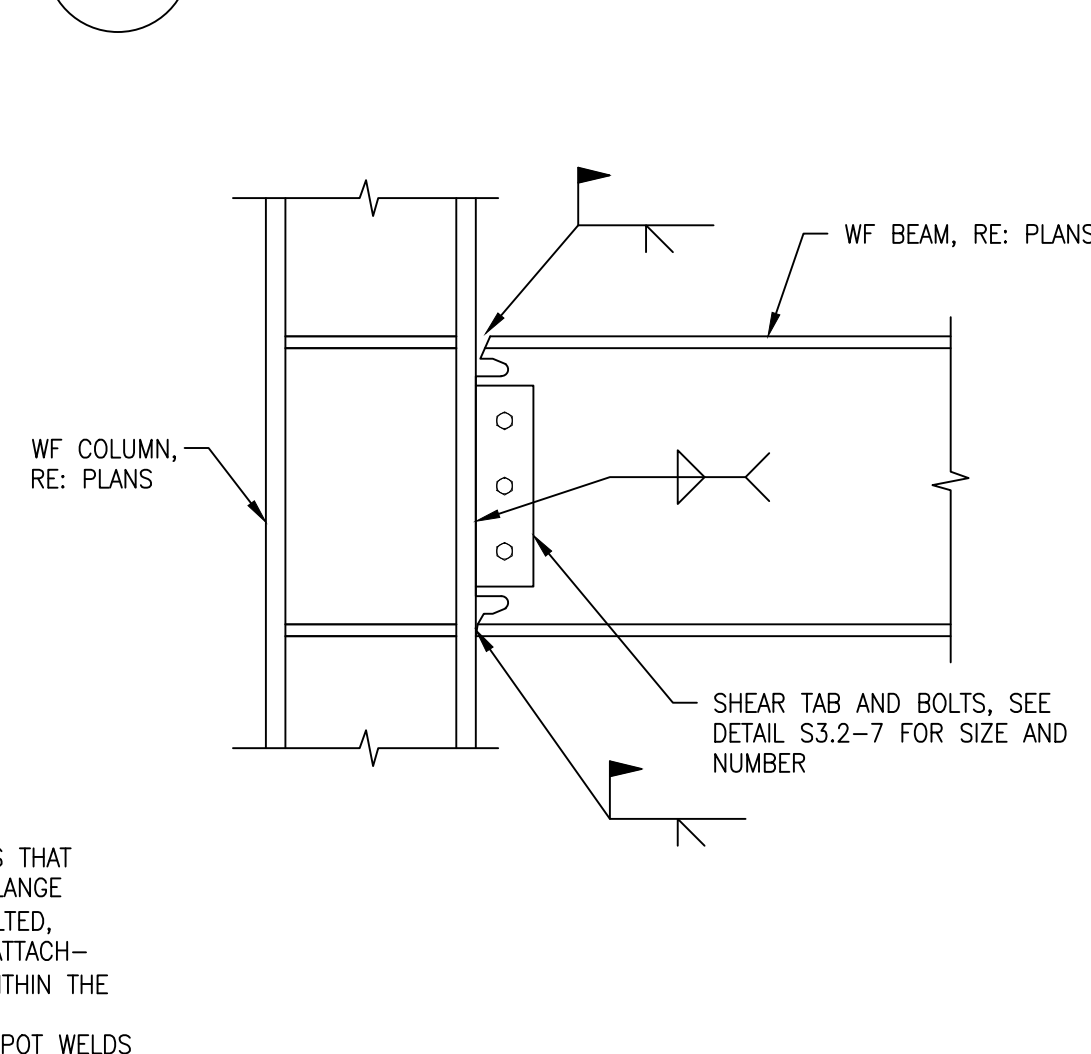
NOTE: SEE DETAIL S3.4-4 FOR WELD CVN REQUIREMENTS

6 REDUCED BEAM SECTION

SCALE: NTS

3 FIELD INSTALLED WEB MEMBER

SCALE: NTS

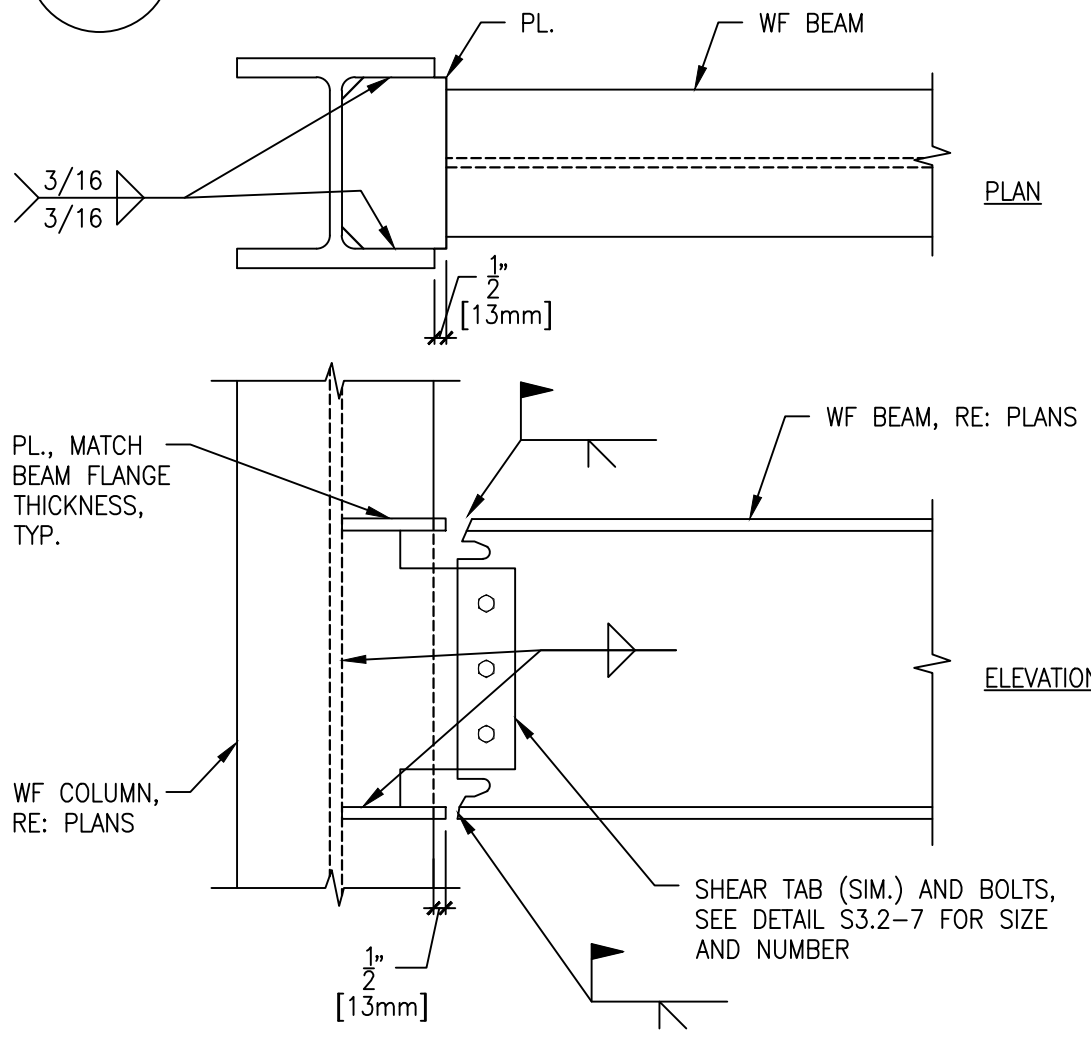


7 BEAM TO COLUMN FLANGE MOMENT Cx

SCALE: NTS

4 TYPICAL MOMENT CONNECTION (SMF)

SCALE: 1" = 1'-0"

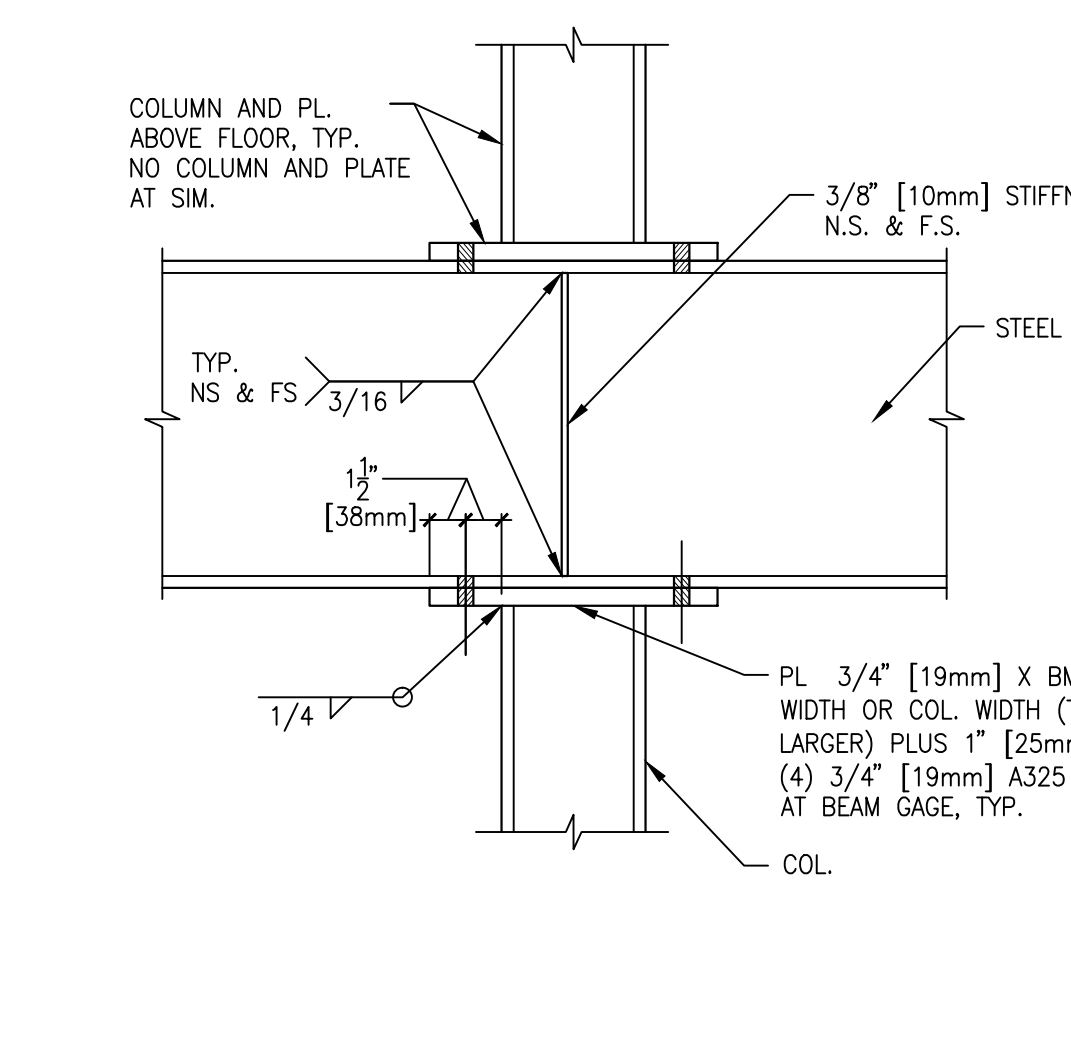


8 BEAM TO COLUMN WEB MOMENT Cx

SCALE: NTS

9 COLUMN - WALL

SCALE: 1 1/2" = 1'-0"



13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

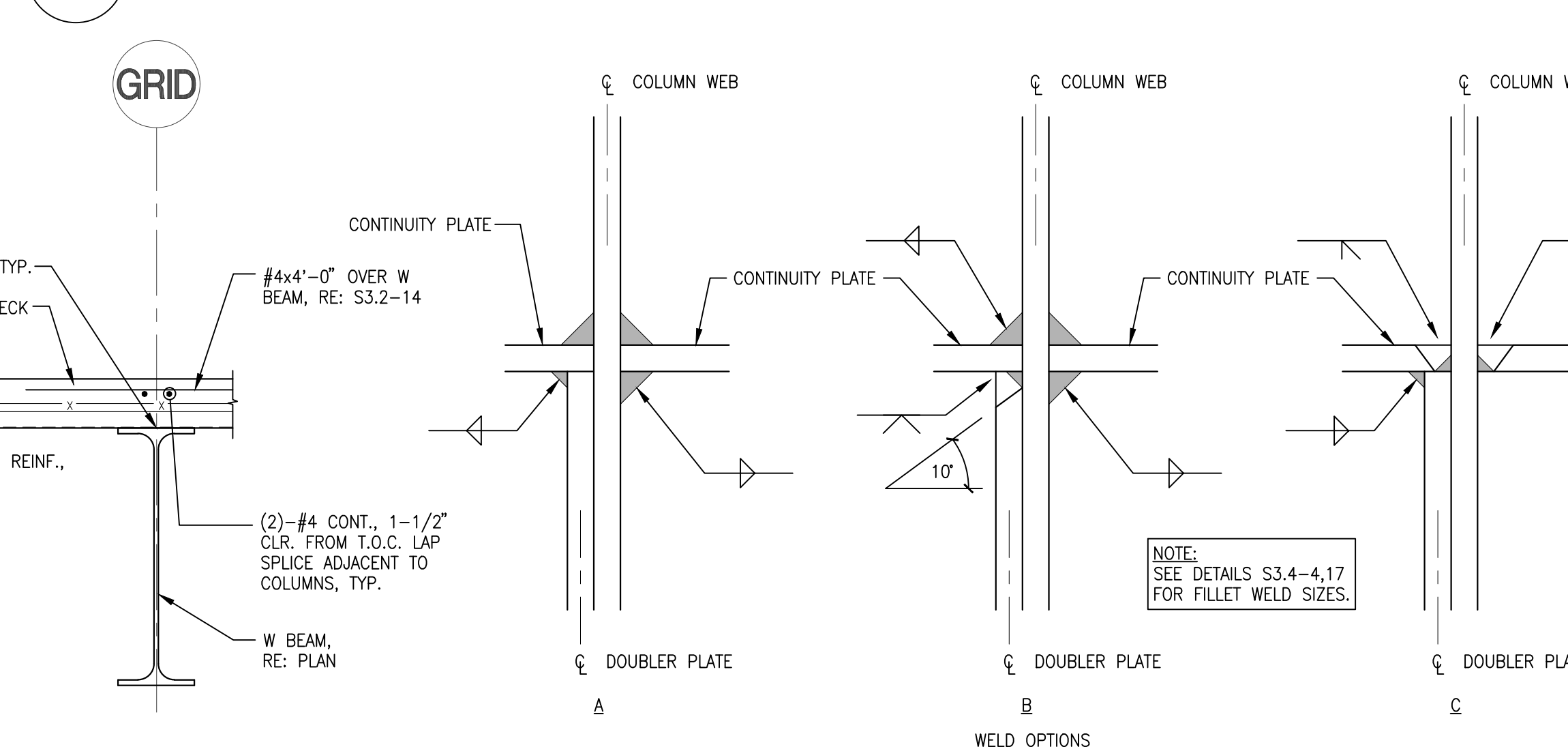
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11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS



16 DOUBLER PLATE WELDS TO CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

SCALE: 1 1/2" = 1'-0"

10 SNOW DRIFT SURCHARGE LOADS

SCALE: NTS

11 SLIDING SNOW SURCHARGE LOADS

SCALE: NTS

12 MOMENT FRAME CONTINUITY PLATE

SCALE: NTS

13 EDGE OF DECK SLAB

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10 SNOW DRIFT SURCHARGE LOADS

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